

BOROUGH OF PRESTON.

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# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

URBAN AND PORT SANITARY AUTHORITIES,

FOR THE

Year ending December 31st, 1908.

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H. O. PILKINGTON,

MEDICAL OFFICER OF HEALTH,

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# *Report of the Medical Officer of Health.*

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TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Gentlemen,

In my Annual Reports for a considerable number of years back I have been able to record a gradual, steady, and fairly satisfactory decrease in the amount of mortality; and the past year of 1908 has the distinction of showing absolutely the lowest rate of any of the past seventy years, that being the period for which figures, dealing with the vital statistics of the town, are obtainable.

It is true that the rate in question is but slightly below that recorded during the preceding year of 1907, and is almost identical with—though still a little below—that of the exceptionally favourable year of 1905, but still the reduction—however small it may be—is evidence of progress, and as such must be regarded as satisfactory.

The Census of 1901, and the subsequent estimation of the population, are subjects with which I have frequently dealt in former Reports, and I do not therefore propose to say anything further on these matters except to point out that the population, as taken for the past year, is lower than that for 1900, and that therefore if the population for that year—118,902—was overestimated, the death rate was really heavier than represented, and the subsequent improvement has been more pronounced than would at first sight appear. On the other hand if the present population is underestimated, the rate of mortality is put at too high a figure, and again the improvement, as compared with pre-censal years, is greater than a comparison of the existing figures would show.

The non-inclusion of Fulwood, and of districts like Penwortham, which are largely occupied by people who make their livelihood, and spend much of their time in Preston, must also be taken into account when judging of the health of the town from the standpoint of last year's vital statistics.

The past year resembled many of its immediate predecessors, in as much as it was marked by an outbreak of Influenza, which commencing with the beginning of the year,

continued with gradually increasing severity throughout February and March, after which it gradually subsided, although it was not until the end of April that the outbreak was practically finished. Although the number of deaths directly attributed to this cause was not very great, there is no doubt that many of the fatal cases of Bronchitis and Pneumonia, recorded in the first three months of the year, were closely associated, at the commencement, with a recent attack of Influenza. The weather during this quarter was variable and severe, and in many of the cases had much to do with bringing about a fatal termination. Compared with former years the Diarrhoeal outbreak was below the average, and occurred later on in the year, the greatest number of deaths being recorded during the months of September and October.

Dealing with the various causes of death, in the order in which they are arranged on the weekly sheets of mortality, it will be seen that no death occurred from Small Pox. Indeed the town was absolutely free from this form of disease throughout the year, resembling in this respect the past year, during the whole of which there has neither been a case of sickness nor a death from Small Pox. There are now much longer intervals from this form of infection than was formerly the case, but the fact remains that the disease may at any time be introduced into the town, and that the exemption from vaccination, which is now more easily and more frequently obtained, has resulted in the formation of a large amount of material liable to attack, and has consequently greatly increased the danger attendant upon a future epidemic. Although the whole country was very free from Small Pox during 1908, since the beginning of the present year, and at the time of writing, cases have occurred at certain seaports, and the infection has been conveyed into the County of Lancashire. Improvements in sanitation and the advance of sanitary knowledge have done much to reduce the chances of a widespread epidemic, but still with the presence of so much combustible material it requires but a spark to start a conflagration which it may prove very difficult to overcome.

The mortality from Typhoid Fever was somewhat above the average, a total of 25 deaths having been recorded from this cause throughout the year. The reported cases of sickness numbered 139, so that the case mortality was 18 per cent. This ratio of mortality to sickness varies considerably from year to year, the lowest rates having been 13.91 and 13.82 in 1899 and 1903, and the highest 29.47 and 27.16 in 1902 and 1905, whilst the average for the past 10 years has been 19.07 or a little higher than that recorded during the past year.

As regards locality Deepdale and Maudland Wards contributed the greatest number of deaths, whilst no fatal case was returned in Christ Church, Ribbleton, or Fishwick Wards.



Of the 139 cases of Typhoid notified by medical certificate, 82 were removed to hospital, and of these 20 died, the proportion of deaths to admissions being 24·39 per cent. This may at first sight seem high, and compares unfavourably with the case mortality of the patients treated at home, 57 such cases having been followed by 5 deaths, or a mortality of 8·77 per cent., but a number of the hospital cases were aggravated by Pneumonia or Meningitis which in many instances was the actual cause of death. In dealing with the localities in which the Typhoid Fever deaths occurred, those taking place at the hospital have been put down to the Wards from which the patients were removed.

The outbreak of Measles which occurred during the concluding months of 1907, continued during the first half of the past year, March and April being the periods when it seemed to attain its greatest severity, and when the highest rate of mortality from this cause was recorded. As usual the greatest fatality occurred amongst the very young, and of the total 95 deaths, 23 were those of infants, and 70 those of children between the ages of one and five years.

Copies of the Poster issued in former years were again affixed to the walls, especially in those localities in which the disease was prevalent, in the hope that the public would eventually learn that it is not a matter of course that every child should suffer from Measles, and that it is necessary, both for the safety of the patient and the protection of other children, that every child which has contracted the infection should be strictly isolated.

A number of the Schools were disinfected, and in the case of four, the Infant Departments, in which the average attendance was seriously diminished, were closed for a period of one month, and this as regards one of these schools was further extended by another fortnight. The death-rate from Measles equalled 0·81 per thousand of the population, a rate which, with the exception of Middlesborough, was exceeded in none of the other large towns.

Scarlet Fever, although never actually absent from the town, at no time assumed epidemic proportions, and, as has been the case for some years past, the prevailing type continued to be mild. This is shown by the fact that whilst 115 cases of sickness were reported, there was only one death, that of a child under the age of 5 years.

The case mortality was only 0·87 per cent., and contrasts favourably with that of the previous year—8·33—or with the average percentage—4·80—for the past ten years. The rate of mortality 0·01 per thousand was exceeded in all the large towns, with the exception of Plymouth, where no death from this cause was recorded; St. Helens, Liverpool, and

Salford, showing the greatest amount of mortality. It must not be forgotten that as regards Scarlet Fever the very mildness of the attack may in itself constitute a danger to the patient, since the attack may be regarded as of little or no importance, and the absence of due precautions may result in the patient contracting cold, and afterwards developing some kidney affection, which, either proves directly fatal, or leaves the patient a chronic invalid.

From Whooping Cough the mortality was low, only 18 deaths, all of which were those of children under the age of 5 years, being ascribed to this cause.

The death-rate did not exceed 0·16 per thousand and this, with six exceptions, was the lowest recorded in any of the other large towns.

No doubt many of the infantile deaths from Bronchitis, especially those occurring in the winter months, were more or less closely associated with attacks of Whooping Cough, since in children so affected, want of care and exposure to cold not unfrequently result in some more severe form of respiratory disease.

From Diphtheria 11 deaths were recorded, a number below the average of former years, the rate—0·09 per thousand—being amongst the lowest of all the large towns. The reported cases of sickness were 60 in number, to which the case mortality—the number of deaths—stood in the proportion of 18·33 per cent.

Of the notified cases, 18 were removed to the Isolation Hospital, where 1 death occurred, whilst of the 42 cases nursed at home the disease proved fatal in 10 instances.

In comparison with many similar manufacturing towns, Diphtheria is not common in Preston; and nothing approaching an epidemic, or even a consecutive series of cases in one locality has so far been met with. In true Diphtheria the early injection of antitoxin serum is of vital importance, and therefore in the majority of cases the prompt removal of the patient to hospital, where this treatment can at once be carried out, is equally necessary. In doubtful cases, and it is not unfrequently difficult to decide whether the patient is suffering from Diphtheritic infection, or from some other throat affection, it is better to err on the side of caution, and to treat the case as being of the more dangerous type.

Although the deaths from Diarrhœa are below the average, if a number of past years be considered, they are in excess of those recorded during 1907.

The summer epidemic occurred late on in the season, the greatest number of deaths taking place in September or the early part of the month following.



A total of 104 deaths were registered as due to Diarrhœa, and of this number 83 were infants, and 19 children a little older, so that only 2 fatal cases were registered above the age of 5 years, Trinity and St. John's Wards are the districts in which the greatest number of Diarrhœal deaths have occurred, and this condition is one which has been observable in former years.

In addition to the improvement in the condition of the houses and yards of the working classes, a good deal of attention has lately been given to subjects, all of which exercise a decidedly beneficial influence upon Infantile Diarrhœa. Further reference will be made to these later on, but they may here be mentioned as—greater purity and cleanliness in the milk supply; the gradual disappearance of the tube feeding bottle; the abolition, or reduction in size of stable middens, with a proportionate decrease in the number of house flies; and the instruction which is gradually being diffused as to the feeding and management of young children.

Leaflets, giving directions for the prevention of Summer Diarrhœa, and the preservation of milk after reception into the house of the consumer, were again distributed.

The use of milk, dried and in the form of a powder, presents certain advantages, especially in the case of the working classes, where house space is often so confined, and there is a consequent difficulty in keeping the milk supply cool, and free from contamination.

The dried milk is supplied in a sterile condition, and its concentrated form admits of its being more easily kept covered up, and so protected from the flies, and germ laden dust, which so readily and frequently cause pollution to the ordinary milk. Its natural condition, as it comes from the cow, has of course been interfered with, and to this extent it loses value, but children appear, for a time at any rate, to thrive well upon it; and, for the reasons given, it possesses advantages which recommend it for use during the hot months of Summer and Autumn.

Consumption, or Tubercular disease of the lungs, was the cause of 116 deaths, a number somewhat lower than that recorded during any of the past few years.

Amongst the general public there is a gradually increasing knowledge as to the infectious nature of Consumption, and as to the manner in which the dangerous germs are carried about in the air, to the serious risk of healthy persons with whom they may be brought into immediate contact. Knowledge of this kind cannot be too widely diffused, since it must be the forerunner and the foundation for all remedial measures. Consumption affects all classes and ranks of society, and therefore its prevention is a subject of national

importance, and one which should excite the interest and enlist the active sympathy of all who are capable of lending a helping hand in this good work. It is satisfactory to know that a national association has been formed, under Royal patronage, for the prevention of this, and other forms of Tuberculosis, and an Exhibition is being organised, to be opened in the Art Gallery, Whitechapel, in the early part of June next.

This Exhibition will be of a popular character, and “will seek by the help of “diagrams, models, actual specimens and other means, to bring home to the people the “nature of the disease, the extent of its ravages, and the possibility of its prevention and “cure, as well as the methods to be employed.” Afterwards the Exhibition will visit other of the poorer districts of London, and will then it is hoped make an extended tour of provincial cities and towns. In this way instruction, forcible, because plain and practical in character, will be widely diffused, and probably will be eagerly sought by all who are either themselves afflicted, or otherwise brought into contact with the disease.

With the commencement of the present year of 1909, there comes into operation a system of compulsory notification of all cases of Phthisis occurring in the practices of Union Medical Officers.

This will of course ensure a certain number of cases being brought under the notice of the Local Health Authority, who may then take such action as under the circumstances may seem to be expedient and practicable.

Probably in the course of time the same case may become the subject of many notifications, because the Union District Medical Officer must report each case occurring in his district, the Workhouse Doctor must report if it is removed into the Workhouse Hospital, the Workhouse Master must report if it leaves the Workhouse, giving the address to which the patient proposes to go, and the Relieving Officer must report any subsequent change of address.

In dealing with a member of the tramping class, suffering from Consumption, these various certificates may be repeated in the case of every town he may visit. Still it will enable supervision to be kept upon the patient, and in this way may prevent his doing as much harm as might otherwise be the case. In connection with these notifications, the precautionary or palliative measures which I have so far adopted have been as follows. The Sanitary Inspector visits each case notified as residing in his district. He gives the patient, or his friends, a card of instructions, showing that the germs of the disease are contained in the patients sputum, the consequent danger of indiscriminate spitting, and of sleeping in the same room with a person affected, and at the same time he gives an order for a portable



spittoon and disinfectants, to be obtained at the Health Office. He arranges for the disinfection of the house, or at any rate of that part occupied by the patient, and gives general advice and instructions as to the necessity for cleanliness, fresh air, and ventilation. So that from this time the patient has a chance of making a fresh start, and of living in such a way that in future he will not be a source of danger to those with whom he is in immediate contact.

The deaths referred to Bronchitis numbered 240, whilst 96 were ascribed to Pneumonia; the two diseases together accounting for 336 deaths, which is a total below that for the preceding year, as well as below the average for the past ten years.

For the purpose of this Report the two diseases may be linked, and considered, together; since they are frequently both present in the same case, and not seldom Broncho-Pneumonia is certified as the actual cause of death. As usual it was at the beginning and end of the year that the greatest amount of respiratory disease was observable, but it was in the month of January, when the weather was especially severe, and Influenza was also prevalent, that the mortality from this class of disease reached its highest point. Towards the end of March and beginning of April, the temperature, which had somewhat improved, again fell, being considerably lower than in the previous month, and with the fall there was a corresponding increase in the sickness and mortality from those diseases of which Bronchitis may be taken as the type.

The deaths caused by Infantile Diseases, those peculiar to the first year or two of life, such as Atrophy, Convulsions, Debility, and the effect of Premature Birth, numbered 366, and showed an improvement upon the average amount for each of the past five years. The various causes of these deaths, and the exact ages at which they occurred, are set forth in Table No. 5a.

As might be expected, the mortality from causes of this description is comparatively low in what may be described as the better residential parts of the town, of which Avenham Ward may be taken as a type, while it is the highest in the more crowded districts, in those localities largely occupied by cotton operatives, and where the birth rate reaches the greatest height.

The detailed enquiry into the circumstances connected with, and surrounding, infantile life, to which reference was made in my last Report as being carried out in two selected districts of the town, is still progressing.

In these special areas, every birth occurring during the year 1908 has been at once visited. Enquiry has been made into the circumstances and history of the parents, the



condition of the residence, and especially as to the occupation of the mother before and after parturition. The feeding of the infant is noted, and frequent visits enable a record to be kept of its progress during the first year of its life, should it survive so long. Since this enquiry takes in all children born up to the close of 1908, it cannot be completed before the end of the present year, by which time a large amount of valuable information, including details not generally enquired into, will have been collected. Since similar observations are being made in a great number of towns throughout the kingdom, it may be expected that the combined information thus obtained will throw considerable light upon the causes of Infantile mortality, will enable preventive measures to be taken, and so in the course of time will lead to a reduction in that waste of early life which so greatly adds to the general mortality. A very considerable time must of course elapse before the immense mass of information and statistics thus obtained can be tabulated and arranged in detail, but it may be hoped that a preliminary examination will bring to light certain conditions standing out as a common cause of, or an adjunct to, a heavy rate of infantile mortality, and that such conditions may at once be dealt with. But apart from the benefits which result in future years, it will I think be found that the assistance and advice given by the Health Visitors at the time of making these enquiries, and during the course of subsequent visits, will have had a good effect upon the infants born in these particular districts, and that in this way some sickness will have been prevented, and some lives will have been saved.

As already stated the deaths due to causes connected with birth, or associated with the first few years of life, amounted to 366, and of this number 300 were registered as under the age of one year. To these must be added the deaths already referred to as occurring from Measles, Diarrhoea, Bronchitis, &c., during the first twelve months making a total of 516 deaths in infants under the age of one year. The rate of Infantile mortality is obtained by a comparison of these deaths under twelve months to each thousand births recorded during the year, and the above figures show that out of every thousand children born, 156 failed to survive the first year of their lives. Amongst the large towns this rate was exceeded in Burnley, Oldham, Middlesbrough and Stockport.

During the past ten years the Infantile death rate has varied from 255 in 1899, to 150 in 1905; the average rate having been 190 per thousand births.

The figures for the past year, therefore, show that a considerable improvement has been effected with respect to the mortality amongst very young children, but much yet remains to be accomplished, and it is to be hoped that by means of special measures and general sanitation each succeeding year will show a further reduction in the number of these deaths, so many of which must be regarded as preventable. During the first half of the past

year the improvement in the children's death rate as compared with 1907, was well marked, but the amount of mortality increased during the last six months, so that in the end the figures for the two years closely approached each other, an advantage of 2 per thousand eventually remaining in favour of the year just past.

The following Table shows the Infantile mortality in each Ward during 1908, as well as the average for the past five years in these parts of the town :—

Ward.	Deaths under 1 Year to 1000 Births.	
	Av. for 5 Years.	Year 1908.
St. John's Ward .....	185	185
Avenham Ward .....	163	80
Christ Church Ward .....	151	171
Ashton Ward ... .	119	106
Maudland Ward .....	170	182
St. Peter's Ward .....	185	162
Moor Brook Ward .....	169	157
Park Ward .....	183	136
Trinity Ward .....	201	214
Deepdale Ward ... .	151	139
Ribbleton Ward .....	173	155
Fishwick Ward .....	144	134
Average for whole town.....	170	156

Particulars as to the remaining causes of death, and the ages and situations in which they have occurred, are fully set forth in the appended Tables.

The numbers resulting from "Old Age," and the various forms of "Violence," are somewhat in excess of those from similar causes in former years ; whilst the deaths from "Other Diseases"—701—correspond exactly with those for the previous year.

Details as to these Other Diseases are given in Table 4a from which it will be seen that 198 were due to various forms of Heart disease, and 104 to malignant affections grouped under the heading Cancer. Attention has been directed to the increased prevalence of Heart affections amongst the unemployed, or rather to the higher death rate from this form of disease which prevails when a large number of the labouring community are unemployed.



This is a subject to which I have not given much attention, but it is quite possible that anxiety, irregular hours, want of food, and even of the habitual amount of stimulant, may have a depressing effect upon the heart's action, and so may pre-dispose to disease, or may accelerate the course of a disease already existing.

The Birth-rate, though somewhat higher than the exceptionally low rate recorded in 1907, falls below the average of the past ten years, and compares still more unfavourably with the rates recorded some twenty years back.

The number of Births registered during the year was 3309, so that the rate did not exceed 27·56 to each thousand of the population. Still owing to the reduced number of deaths, the natural increase—the excess of births over deaths—amounted to 1,334 lives, and since a somewhat similar increase has been going on from year to year, it is difficult to believe that the population, as it at present stands, is not under-estimated.

The important Act, known as the Notification of Births Act, 1907, was adopted by a resolution of the Town Council, passed at a meeting held on January 2nd, 1908. After due notice, and with the consent of the Local Government Board, the Act came into operation on February 5th.

The following summary of the first section defines the respective duties of the public, and the Local Authority in carrying out the provisions of the Act :—

In the case of every child born in an area in which this Act is adopted it shall be the duty of the father of the child, if he is actually residing in the house where the birth takes place at the time of its occurrence, and of any person in attendance upon the mother at the time of, or within six hours after, the birth, to give notice in writing of the birth to the medical officer of health of the district in which the child is born, in manner provided by this section.

Requires that the notice referred to in Sub-section (1) be given in writing (which may be either posted or delivered) within 36 hours of the birth of the child. It stipulates that the Local Authority shall supply without charge stamped post cards containing the form of notice to any Medical Practitioner or Midwife residing or practicing in their area, who applies for same.

Any person who fails to give notice of a birth within 36 hours, shall be liable on summary conviction to a penalty not exceeding 20/-.

Notification required under this Act is in addition to and not in substitution for the requirements of any Act relating to Registration of Births. Registrars of districts to have access to Notices of Births received by the Medical Officer of Health under this Act, or to any book in which notices may be recorded, for the purpose of obtaining information concerning births which may have occurred in his Sub-District.

Provides that notice shall be given of births after the 28th week of pregnancy, *whether alive or dead.*



The intention of the Act is to enable the Health Authority of any town or district to receive early intimation of any birth occurring within its jurisdiction, and so to give it the opportunity of at once affording the advice and assistance which, especially in a town like this, is in the majority of cases so urgently required. Without the assistance of this Act, the special enquiry into the causes of Infantile mortality, to which reference has already been made, as being carried out in certain areas of the town, would lose much of its value, since intimation of the birth of a child might not be received until two or three months after its occurrence, and the assistance of the Health Visitor would thus be delayed until after the most critical period of the child's existence. It is presumed that every citizen knows the law, but an Act of this description requires some little time to become generally known, and to get into working order, and it is satisfactory to find that, in the time which has elapsed, it has become universally recognised, and conscientiously obeyed.

Some few omissions and delays have of course from time to time occurred, but these were chiefly soon after the commencement of the Act, and were the result of ignorance, and not of a wilful disregard of its provisions.

As already stated the total number of births registered during the year was 3,309, whilst the number reported to the Medical Officer of Health under the Notification of Births Act was 2,919, leaving 390, the majority of which may be accounted for by the fact that the Act did not come into operation until the second month of the year, whilst a number of those registered actually occurred during the preceding twelve months. Of the 2,919 notifications received, 1,209 were made by midwives on the official stamped forms supplied to them by the Health Authority, 1,704 were reported either verbally or by letter to the Medical Officer of Health at his office or residence, and 6 only were directly notified by Medical Practitioners. The small number of notices received from the last named source may be accounted for by the fact that the profession declines to burden itself with a work for which it is not paid, and which can be equally well carried out by some other person.

At the date of my last Report there were 52 midwives, holding the certificate of the Midwives Act, 1902, and registered for practice in the area of this Local Authority.

Since then the name of one has been removed on account of death, whilst the names of four others have been added making a total of 55 now engaged in practice.

Of this number 4 hold the certificate of the Central Midwives Board, and 6 others the certificate of some Hospital or Obstetrical Institution recognised by the Board, the remainder basing their claim to be certificated as midwives on the ground that they were engaged in active practice prior to the passing of the Act in 1902.

All the midwives have been inspected, and though several have at various times been cautioned for minor irregularities, there has been no offence of a serious nature, or one which it was necessary to report to the Central Authority.

Although a number of the midwives belong to the old school, and several are quite illiterate, there has been a gradual tendency to improvement as regards dress, cleanliness, attention to instruments, and the like, all of which tells for the safety of the patient. During the year 14 reports were received, of which 7 referred to some condition affecting the child, and an equal number to some abnormal condition of the mother.

The cases of Puerperal Fever were not numerous, only 5 having been notified, and of this number 2, or 40 per cent., terminated fatally. There were in addition 11 other deaths due to some accident or non-infectious condition connected with Parturition.

In Table No. 9 there is set forth a summary of the work done by the Inspectors in the 4 Sanitary Districts into which the town is divided. Although the figures to a great extent speak for themselves, and give evidence of a frequent and systematic inspection of all parts of the town, they cannot convey any adequate impression of the difficult and detailed work necessitated by some of the examinations. This is especially the case where the presence of infectious disease, or some evident or suspected defect, leads to an examination of the drainage. In the older parts of the town no record of the existing drainage is available, and frequently on opening up the ground, a network of drains will be found, laid and re-laid at different times, receiving, or discharging into, the drainage of surrounding property, and of which some are in use, and others obsolete and worse than useless. Defective conditions of various kinds may be discovered, ill-fitting and broken joints, larger pipes discharging into those of smaller calibre, junctions made not by means of a tapering pipe but by the more primitive method of breaking a hole into the upper part of one pipe and allowing another to discharge somewhere near the opening, and drains laid upon the flat, or even falling in the wrong direction. Gullies and outside water-closet basins may have sunk from their original position, and the traps—no longer upright or effective may have lost their seal, so that no protection is afforded against the backward flow of sewer gas. Sometimes in such cases where the consent of the owner can be obtained, it is advisable to reorganize the whole system, giving to each house its own separate drain, laid at a proper gradient, and leading by the most direct route to the sewer. Or under suitable conditions, and especially in the case of better class dwellings, an intercepting trap may be fixed, having an inlet for fresh air, and connected with an upcast shaft placed at the highest point of the drain. Work of this kind, besides requiring skilled training, must needs occupy a considerable amount of time, and yet it may all be summarised under the heading “ Drain tested,” or “ Notice served for defective drainage.”



In addition to the inspections set forth in Table No. 9 a considerable amount of important work has been done under the Factory and Workshops Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

This is shown in a separate Table, No. 10, and from this it will be seen that very nearly two thousand visits have been made during the year to the different places of employment. A list of the various trades thus dealt with is also shown in Table No. 11, whilst in Table No. 6a still further information is given.

Of late years the Sanitary accommodation at the larger factories has received a good deal of attention, with the result that marked improvements have been effected, and in the great majority of cases the system, both as regards amount and efficiency, has been brought up to the required standard. More recently similar attention has been given to the workshops and smaller business premises, the closets have been increased in number and improved in construction, separate accommodation has been provided for the sexes, a proper amount of ventilation has been secured, cleanliness has been enforced, and the general conditions under which a great number of people spend their working hours have thus been materially improved.

Middensteads connected with stables and cowsheds situated in the midst of a town, always present conditions with which it is not easy to deal, and not seldom give rise to nuisances more or less serious in their nature. Frequently they date back for many years, to a time when their surroundings were much more open, when possibly few, if any, dwellings were in their immediate neighbourhood. Gradually buildings have sprung up, until now the middenstead possibly abuts against the wall of one house, and is overlooked by the windows of several others. Many of them are unnecessarily large, not only presenting considerable superficial area, but also extending much below the level of the ground, with the result that they are seldom emptied to the very bottom.

In addition to the smell inseparable from the storage and removal of large quantities of manure, these middens form the favourite breeding places of the common house-fly. Although no doubt the fly plays a useful part in nature's economy as a general scavenger, it is equally certain that it can, and does, assist in the spread of disease, more especially disease of a diarrhœal nature. Entering the houses during the hot weather, and driven into them in vast hordes on the approach of a colder temperature, the flies carry with them upon their hairy feet and legs the germs and particles derived from the filthy matters over which they have recently been promenading in their search for food.



Attracted by the foodstuffs, sugar, milk, &c., which too often are left uncovered as though in very invitation, the flies deposit these poisonous germs wherever they may settle or tread, with the result that the food, and especially the milk, becomes contaminated, and in the case of infants and young children gives rise to much of that diarrhoea which every year has such a widespread and fatal result.

It is a difficult matter to entirely do away with any of these middens, and so reduce their numbers, but improvements can be, and have been, effected with regard to their size. In several instances not only has the area been materially reduced, but the bottom has been raised above the level of the ground, whilst a sloping cover of wood has been provided, furnished with a trap door, through which the manure can be thrown as required. In this way a continuous annoyance to the tenants of the surrounding property has been prevented, whilst access to the flies is to some extent impeded. But as regards these latter much can be done in every house by keeping food and especially milk, covered up and so protected from their contamination. In small cottage houses where space is limited and where the back kitchen is often both larder and wash-house this is by no means easy, but with watchful care it is possible, and any trouble will certainly be justified by the result. It is here that the milk in powdered form offers certain advantages, since occupying little space, it can be kept covered up, and so protected from air or insects, a portion being withdrawn each time when required.

As regards the milk before reaching the consumer, considerable improvements have been made, especially in the case of the Urban Shippons and Cowsheds.

Lighting, ventilation, and air space have been increased, and in some cases a dairy, in which the milk can be dealt with, and the milk cans and vessels kept clean, has been constructed. Such a building as this however small it may be, is a necessary adjunct to all shippons and cowsheds, since otherwise the milk and milk vessels are taken into the house, and so brought into contact with food and other substances from which dirt and impurities are not unfrequently absorbed.

In addition to the samples of Milk submitted to analysis, and which are dealt with further on, a number were taken for the purpose of bacteriological examination, with a view to ascertaining the presence or otherwise of the Tubercle bacillus, as well as of dirt and other extraneous matters.

The results on the whole were satisfactory, no Tubercle being detected, whilst the samples were generally free from deposit; although in one or two instances the presence of a small amount of foreign matter suggested that greater care might have been taken as regards

cleanliness, and the sieving of the milk. It seems probable that before very long Legislation will deal thoroughly and comprehensively, by means of a Bill, with the whole milk question, meantime much can be done by Local Authorities in the way of obtaining more cleanly conditions, both as regards the housing and milking of the cows, the preparation and delivery—kitting—of the milk, and the manner in which it is stored and dealt with after reaching the hands of the consumer. With milk as with many other articles prepared for food, much depends upon the cleanliness of the person through whose hand it passes, and it is a merciful fact that few consumers recognize how low in this respect is the standard aimed at or reached. Were it otherwise the fastidious would be reduced to a diet of substances, which like eggs and nuts, carry their own protective envelope.

The work of converting the old privy-midden system to one of water carriage has now to a great extent been completed throughout the town, and therefore of late years there has been a gradual reduction in the number of notices referring to this class of work. There are however a few blocks in which, for some special reason, the work has not been pressed, or some latitude of time has been granted; as well as a few isolated cases where houses scattered about in the midst of a block have escaped attention for the time, although the property in the neighbourhood has been improved.

These cases are now however being looked up, so that before very long it is to be hoped that no solitary instance of such an insanitary arrangement will remain. The effect upon the health of the town, resulting from the abolition of these filth receptacles, the combined area of which must have been very considerable, can hardly be overestimated, and to the action of the Health Department in dealing with these nuisances, each upon its own demerits, must be attributed much of the reduction in the death rate.

The flagging of the backyards has been proceeded with, and also that of the lobbies running at intervals between the houses, since these really form a part of the available yard space, and being covered over, and situated under the bedrooms, their sanitary condition is quite as important as that of the yards themselves. The great improvement resulting from the substitution of flags for pebble pavement is now generally recognized by owners of property, and in many instances the work is voluntarily undertaken, and without the necessity for formal notice. Work of this kind cannot be satisfactorily carried out in winter time when moreover there is often a difficulty in obtaining suitable flags, and so I would impress upon property owners the advisability, and indeed the economy, of taking advantage of the present time for the purpose of improving both the sanitary condition, and the general appearance of their cottage property.



Table No. 12 summarizes the work of the Health Visitors, and gives an idea not only of the amount but also of the nature of that work. The Early Notification of Births Act enables the mother to be visited soon after the birth of her child, and consequently admits of advice and assistance being given at the time when often it is most required. The increase in the number of children who are returned as "Breast Fed" at the date of this visit is no doubt to be accounted for by the fact that a shorter time has elapsed since parturition, and that in the very early life of the infant "Breast Feeding" is almost universal, but is too often shortly discontinued. It is in this direction that the Act promises to be useful, since the Health Visitor arrives in time to encourage the mother to continue the natural manner of feeding, at any rate for a longer period than would otherwise be the case. The number of Tube Feeding Bottles found in use is less than in former years, but this, like many other evil customs, dies hard, the more so since it saves a certain amount of trouble in feeding the infant. A great number of visits were paid with respect to minor Infectious Diseases amongst School children, and in this way the spread of diseases, sometimes dangerous and always troublesome, was greatly checked. With respect to the Medical Inspection of School children, arrangements are now being made by which the services of the Health Visitors will in this direction be still further utilized.

The two following Tables give information as to all cases of infectious disease reported from the various Schools, as occurring amongst the children in attendance; and includes both those which under the Infectious Diseases Notification Act must be certified by the Medical Attendant, and also Measles, Whooping Cough, and diseases of minor importance, which however are capable of being transferred from one child to another. Table A gives the name of each School, and the number of Scholars affected with each of the various diseases; whilst Table B gives the ages of the children in question. Such tables will, in the course of time, serve to show the prevalence of certain diseases in certain Schools, whilst for a single year they show how the children of adjoining Schools have suffered from the same form of infection, pointing to communication in the streets, or at their homes.



TABLE A.

	Typhoid Fever.	Scarlet Fever.	Measles.	Whooping Cough.	Diphtheria.	Chicken Pox.	Mumps.	Ringworm, Eczema, Sore Eyes, Heads, &c.
Parish Church	..	..	30	13	..	3	..	2
St. James	...	...	25	3	...	2	2	1
St. Augustine's	...	1	33	8	1	...	1	3
St. Saviour's	...	...	...	2	...	...	...	2
Grimshaw Street	...	1	3	...	...	4	1	5
St. Stephen's	...	...	58	2	...	2	29	...
Christ Church	...	2	74	..	1	...	1	...
T. C. Hincksman	...	3	53	2	1	29	..	1
St. Mary's R. C.	...	...	30	..	...	15	1	9
St. Wilfrid's	...	...	11	..	...	1	...	3
St. Michael's	...	1	7	1	...	...	...	2
Sacred Heart	...	...	4	...	...	...	1	...
Ashton Wesleyan	...	...	25	...	...	...	1	10
St. Andrew's	...	...	27	1	...	...	1	3
Roebuck Street Council	...	1	40	1	...	2	3	20
St. Walburge's	...	3	53	1	...	...	...	1
St. Mark's	...	1	39	...	...	15	2	7
St. Peter's	...	2	17	5	1	2	4	6
Barlow Street Wesleyan	...	...	5	...	...	1	...	...
Emmanuel	...	2	5	1	..	1	1	15
Plungington Road National	...	2	9	1	.	14	...	1
Eldon Street Council	..	1	26	11	2	7	...	6
Moor Park Wesleyan	...	...	12	4	...	1	...	...
English Martyrs'	...	3	34	6	...	1	..	6
St. Jude's, Kent Street	...	3	33	10	...	3	...	7
St. Jude's, St. Paul's Road	...	...	6	1	...	2	1	4
St. Paul's	...	2	46	4	...	4	3	13
St. Ignatius' Elementary	..	3	20	2	...	1	3	16
St. Ignatius' Higher Grade	...	...	24	1	1	1	..	1
St. Thomas's	...	...	2	5	...	17	3	5
All Saints	...	...	44	5	...	4	1	5
Holy Trinity	...	1	15	1	...	3	1	1
Orchard U.M.F.C.	...	1	8	1	...	...	...	...
St. Luke's	...	1	45	14	1	5	8	46
St. Joseph's	...	2	46	5	...	..	17	38
St. Matthew's Elementary	...	2	12	...	...	1	6	7
St. Matthew's Branch	...	...	12	1	...	1	5	2
Tennyson Road Wesleyan	...	...	10	...	...	...	...	1
St. Mary's National	...	1	41	5	1	1	12	7
St. Mary's Wesleyan	...	1	17	5	...	...	2	5

TABLE B.

	0—3	3—4	4—5	5—6	6—7	7—8	8—9	9—10	10—14	Total.
Typhoid Fever ...	...	1	2	...	1	1	...	.	9	14
Scarlet Fever ...	...	2	4	6	4	5	1	2	5	29
Measles ...	11	110	241	302	168	70	33	19	47	1001
Whooping Cough ...	...	12	19	48	28	6	4	2	3	122
Diphtheria ...	...	...	2	2	2	1	1	...	1	9
Chicken Pox ...	1	7	23	55	35	11	3	2	8	143
Mumps ...	...	1	14	24	30	13	7	10	12	111
Ringworm, Eczema, Sore Eyes, Heads, &c. ...	...	2	13	47	55	36	30	29	49	261

The Common Lodging Houses have been regularly visited, and have been kept in the best condition, that their structural conditions, often imperfect and defective, will allow. The larger establishments, and those in which men of the labouring class are regular inmates—often occupying the same bed for weeks or months without change, are in the most satisfactory condition, compared with the smaller ones, both as regards structural features and internal management. In them the Regulations are more thoroughly carried out, and there is a disposition to fall in with suggestions made by the Sanitary Inspectors for their better management. The houses of smaller size, often consisting of one or two cottage houses thrown together, are more difficult of control, but it is better that they should be registered and so recognized and brought under the supervision of the Police and Sanitary Authorities, rather than they should carry on an unregistered business, and eventually become, as they would do, something worse.

“Furnished Apartments” where a room, provided with a few meagre sticks of furniture, is let off to a family for use as a combined living and sleeping apartment present difficulties as to inspection and supervision. These rooms are generally occupied by the thriftless and intemperate, since few others would pay the extravagant price demanded for the poor accommodation afforded. A house, in which every room is let off in this manner, makes a good



pecuniary return, since the rent is demanded each week, or—where there is slightest doubt of the tenants ability or intention to pay—each night. Since the owner makes a large profit there is the more reason why he should be compelled to keep such places in a state of cleanliness and good repair.

The other nomadic members of the population are the dwellers upon the Canal boats, and the persons—gypsies and others—who from time to time visit the town, more especially at fairtimes and holidays.

The Canal-boat people, living an open-air life, are as a rule clean and healthy; and though the space afforded by the cabins is exceedingly limited, they take a pride in keeping them and their contents in a bright and spotless condition. The same may be said of the better class show-people, those connected with the elaborate and expensive “Shows” and “Round-about” which, going from fair to fair, visit this town especially at Whitsuntide.

A more troublesome class are the real tent-dwellers who combine fortune-telling with brush and basket making, and who in their periodical journies to and from the seaside, are apt to take possession of, and for a time to squat upon, any piece of land which may suit their purpose.

The following Report, compiled in accordance with the Canal Boats Act, 1877 and 1884, has already been forwarded to the Local Government Board. It will be seen that the boats, both as regards number and condition remain much the same as in former years.

#### COUNTY BOROUGH OF PRESTON.

##### CANAL BOATS ACTS, 1877 AND 1884.

I beg to submit the following Report for the year 1908, dealing with the condition of the Canal Boats plying upon that portion of the Preston, Lancaster and Kendal Canal, situated within the boundaries of this Borough, and so coming within the jurisdiction of this Sanitary Authority.

But little change has taken place during the year, and the number of boats upon the register—33—is identical with that for 1907.

A total of 55 boats have in all been registered, but certificates to the number of 22 have at different times been cancelled, leaving the present number as stated.

With two exceptions, all the boats have been inspected during the year, as have also several others registered by the Lancaster Authority.

The work of inspection is carried out by Inspector Crossthwaite, in addition to his other duties as Sanitary Inspector, and without his being in receipt of any special emolument.

A change of ownership in two of the boats necessitated the issue of fresh certificates, and in a few other instances where the certificates were torn or disfigured, fresh copies were supplied.

No case of infectious disease has been met with upon any of the boats, nor has any such case been notified as occurring amongst the occupants. The death of an infant, aged one month, took place on the boat "Nellie," No. 53, the cause assigned being Diarrhœa. The body was at once removed to the residence of the parents.

Infringements of the Regulations—chiefly referring to the painting of the cabins—were found in seven instances, and were reminded by the owners at the request of the inspecting officer, without the necessity for formal notice.

One notice served near the close of the year will very shortly be complied with.

Two other notices served by a neighbouring Authority have also been investigated, and the notice forms have been duly signed and returned.

No children of school-going age have been met with upon any of the boats.

The following Table shows the details of occupation and inspection during the past ten years:—

		1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
No. of Inspections	..	65	38	68	96	103	105	113	111	132	129
Males in occupation	..	44	48	88	104	113	140	142	146	169	162
Females	Do. ..	20	26	40	48	38	64	71	59	67	78
Children	Do. ..	21	32	48	46	29	53	68	53	46	79

All other details are shown upon the Statistical Supplement, which as usual is appended.

February 3rd, 1909.

H. O. PILKINGTON,  
Medical Officer of Health.

Under the Food and Drugs Adulteration Act, samples to the number of 282 were at different times throughout the year purchased, and submitted to analytical examination. Of these the greater number—219—were purchased with all the formalities which are required in order to enable further proceedings, where necessary, to be taken. The others—63—were obtained in an informal manner, the vendor not being informed as to the object of the purchase, which was of course to obtain information which might serve as a useful guide in future purchases. The substances obtained were articles of food or drink,—butter, milk, and coffee being well represented,—or else the commoner form of drugs, those in ordinary domestic use. Of the formal purchases 197 were returned as being of genuine quality, and 22 as being in various degrees adulterated. Of the latter, further proceedings were taken in 4 instances; as regards the others the vendor was cautioned by letter. One



prosecution was for butter which consisted of 85 per cent. of other fats, with the result of a fine of £1 and costs. For selling whisky diluted to 34 degrees under proof, or 9 degrees below the statutory limit, the vendor was ordered to pay costs. In two milk cases in which there was evidence that water had been added to the respective extents of 8 and 20 per cent., fines of 20s. and 40s., together with costs, were imposed. Cases of this kind where a marked deficiency in the solid matters, and possibly in the butter fat, points to the addition of water, are such as call for severe penalties. Of the articles informally purchased 55 were certified to be genuine, and 8 adulterated. Tables Nos. 15 and 16 will give full information as to the analyses for the year.

Considerable attention was given to the nuisance caused by the emission of black smoke from the chimneys of the various mills and manufactories; and observations, each of half an hour's duration, to the number of 573 were taken and recorded. On the whole there has been an improvement as regards the smoke nuisance throughout the town, and the various masters and mill owners have evinced a disposition to assist the Health Authority in its efforts to repress what is at once a nuisance, and a serious waste of fuel. The problem is one which though comparatively easy of solution in the case of modern mills with ample boiler accommodation, is in the case of the older ones much more difficult to deal with. Even if a remedy were effected in the case of all the larger manufactories, there will still remain the smoke from the chimneys of brewhouses, bakehouses, and the washing boilers of ordinary cottage houses. The smoke from these is of course neither so constant, so heavy in volume, or so far reaching in effect, but for a short time it is often very black, and on account of the lowness of the chimneys, not seldom causes a good deal of disturbance, inconvenience, and loss of temper in the immediate neighbourhood.

The observations taken with regard to the mills were in five instances followed by legal proceedings. In three cases an order was made for abatement, in two of them within three months, and in the other within two months, from the hearing of the summons, another case was not heard, and, in the fifth, proceedings were withheld, as at the time a smoke consuming apparatus was in process of being affixed.

In addition to the above cases, and those already referred to in which proceedings were taken under the Adulteration of Foods Act, a prosecution was only required in one instance. This was for the serious offence of exposing for sale upon the public market the carcase of a pig, which was diseased and unfit for human food. It was seized, and having in due course been condemned by order of a Magistrate, was destroyed. The subsequent prosecution resulted in a fine of £5 and costs being imposed.

Such private Slaughter Houses as remain in the town have been regularly visited, and the meat killed both in them and at the Public Abattoir has been systematically inspected. The amount condemned and destroyed is greater than in previous years, but the whole of it was voluntarily submitted to inspection, and therefore the condemnation was not followed by any legal proceedings.

The Fish Markets, wholesale and retail, and the various shops and hawkers' carts have also received constant attention, and in this way a large amount of fish, not considered fit for human food, has been withdrawn from consumption.

The Act dealing with the Medical Inspection of School Children came into force at the beginning of 1908, but of necessity a considerable amount of time was taken up in the preliminary arrangements, and it was not until September that the actual work of examination commenced.

Although the administration of the Act rests with the Education Authority and its officials, the work, aiming as it does at improving the health and physique of school going children, is so closely connected with the question of health and sanitation, that it can only be satisfactorily carried out by the combined efforts of the Education and the Health Authorities. For this reason the Board of Education in a Memorandum published in November, 1907, has recommended that, wherever possible, the Medical Officer of Health for a Town or district shall be appointed, for advisory purposes, the Schools Medical Officer. But since his numerous other duties will prevent this official from personally carrying out the work of inspection, assistance must be given by the appointment of one or more Medical Inspectors of School Children.

This is the course which has been adopted in Preston, so that whilst I hold the position of School Medical Officer, my colleague, Dr. Charles Murray, undertakes the actual work of inspecting and examining all the children attending the Elementary Schools in the town.

The Act provides for the inspection of each child four times during its school-going life, once at its entrance, again in its third year, again in its sixth year, and lastly, if possible, at the time of leaving school. However expeditiously each inspection may be made, the work, on account of the number of children concerned, is one of great magnitude, and can only be satisfactorily performed with the assistance and co-operation of all concerned, especially of the School Teachers, upon whom so much relating to the welfare of the child must depend.

Each child is provided with a card upon which are printed a large number of headings—height, weight, condition of heart, lungs, skin, eyes, teeth, &c.,—which, when filled up will give a concise and tolerably complete description of the child's physical condition. The



card is ruled in four columns, for the four different examinations, so that any variation in the child's condition at these age periods can at once be seen, and the completed card will give the child's physical history during its school going life. These cards will be kept in special cabinets in each school, and as the child advances from class to class, or even if it changes from one school to another, the card will accompany it. It is prescribed that the height and weight shall be recorded both in the English and Metric Systems, and suitable weighing and measuring machines had to be provided. No doubt, in time, these will form part of the equipment of each school, but at present, on account of expense, six only have been provided, and these have been distributed amongst various groups of schools.

It is in the preparation of the child for medical examination, in the filling up of the particulars as to its school attendance, and its personal and family history—all of which are recorded upon the card—that the help of the School Teacher is required, and it is only with this assistance that the work of medical inspection can be satisfactorily accomplished.

The work of the Medical Inspector is purely one of inspection, not of treatment, and so when a child is found to be in such a condition as to require medical treatment, a notice to that effect is sent to the parents, with a request for early attention. Where some minor defect in a child's condition points to inattention or a want of care in its home life, notice will be sent to the Health Office, and the Health Visitor for the district in which it lives, will call and give the necessary advice and assistance.

Such, briefly, are the arrangements for the Medical Inspection of School Children which need be dealt with in this report, and, as already stated, their preparation and determination occupied the greater part of the year, so that only the last three months were devoted to the routine work of inspection. During this time 1,404 children were examined, and of this number no less than 1125 presented defects of one kind or another, in the great majority the teeth being more or less carious. Since so large a proportion of the children are in this respect seriously defective, instruction as to the care and preservation of the teeth is urgently called for, and this is a matter which at the present time is receiving attention. In addition to the physical examination of the children, the Medical Inspector can do much to prevent threatened outbreaks of such diseases as Measles and Whooping Cough, by weeding out and isolating all those who show signs of having contracted infection. Dust in schools should as far as possible be avoided, since it is very likely to contain infectious germs given off from the breath or bodies of the children, and when disturbed serves as a vehicle for their transference to the healthy.

Much good could be done in this direction, by not only sprinkling the floors with disinfectants, but also by the systematic wiping of the furniture—desks, seats, hat and cloak

stands, &c.,—with a cloth moistened with some reliable, but not foul-smelling, germicide. Such a course would entail some additional expense, but would result in an improvement in the atmosphere of the school and the health of the children.

Amongst the works not directly carried out by the Health Authority, but which greatly tend to enhance the appearance, and improve the sanitary conditions of the town, may be mentioned the sett paving and flagging of certain streets. Work of this kind not only renders it feasible for the localities in question to be efficiently scavenged and watered, but also induces the residents to take a greater pride in their houses, and to attend more thoroughly to the cleanliness and sanitary condition of their surroundings. Under the supervision of the Borough Surveyor, sett paving and flagging to the respective extent of 10,414 and 12,598 square yards was accomplished during the year.

In certain other streets boulder pavement to the extent of about 10,000 square yards has been re-laid, and at the same time the pavement has been racked and grouted in such a manner as to render the surface watertight, and so to give to these streets, from a health point of view, many of the advantages of sett-paving.

The new Park and Recreation Ground, situated in Ashton, to the north-western side of the town, although not yet arranged and layed out, is already largely used by persons residing in that district. The Park takes its name from Miss Haslam of Powis Road, Ashton, the generous benefactress, who in making this gift to the town, has done much for the pleasure and better health of future generations.

Apart from ornamental purposes, the necessity for such open-air spaces increases with the growth of a town, and the necessity for the present one is shown by the use to which, even in its present unfinished condition, it is being put. When completed it will take rank with the beautiful Avenham, Miller, and Moor Parks, and will form a lasting tribute to the memory of an old and honoured Preston family. Few manufacturing towns can show Parks like those of Preston, certainly none which possess greater natural advantages, and in a few years Haslam Park will take its place as an ornamental, well frequented, and most valuable recreation ground.

Together with the Chairman of the Health Committee, I had the privilege of attending the National Conference on Infantile Mortality held in London on March 24th and 25th. This was a continuation of the Conference held in December, 1906, which did so much towards arousing the attention, and stimulating the action, of the whole country with regard to this question, a question which it was then shown was one of national importance. Papers were read, and discussions took place dealing directly and indirectly with Infantile Mortality, and a number of resolutions were passed, bearing upon the same subject.



Later on in the year, and again in company with your Chairman, I attended the Conference of the Sanitary Institute, held in Cardiff. The heavy death rate amongst young children was here also dealt with, but a wider range of subjects was included in the programme for discussion, Water Supply, Sewage Disposal, Hospital Construction and Administration, Inspection of School Children, Trade and Food Diseases, Town Planning, &c., &c.,

The value of such meetings consists in bringing together a great number of persons interested, or connected, officially or otherwise, with some branch of sanitation, and in the papers and subsequent discussions, in which opinions and experience are interchanged and criticised, difficulties related, and if possible solved, and advice and encouragement given to many who feel that whilst their efforts are tending in the right direction, they have so far met with but small meed of success.

H. O. PILKINGTON,  
Medical Officer of Health.

## THE ISOLATION HOSPITAL.

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The Isolation Hospital, opened in June 1907, continued in active use during the whole of the year, although the number of patients constantly varied, owing to seasonal influence upon infection, and other causes. The following Table gives the number of admissions from the various diseases, together with the results, during the past year :—

Disease.	Admissions.	Deaths.	Recoveries.
Typhoid Fever ...	82	20	62
Scarlet Fever ...	53	1	52
Diphtheria ...	18	2	16

In dealing with Typhoid Fever I have already referred to the high rate of mortality amongst the cases treated in hospital, as compared with those who were not removed, and have explained that several of the patients were suffering from Pneumonia or Meningitis.

Possibly Typhoid Fever was also present, but this was overshadowed by the severity of the other symptoms, and in most cases the disease, or complication of diseases, proved fatal shortly after admission.

Besides the above admissions, there were 29 patients remaining in hospital at the beginning of the year, so that 182 represents the actual number of patients dealt with during the twelve months. The duration of stay in hospital varied very considerably, from a day or two where death followed soon upon admission to two or even three months in cases of protracted convalescence, but the average length of residence was about forty days, or nearly six weeks to each patient.

The total expenditure, exclusive of balance of contract paid to the builder, was £2384, which represents a daily cost of 6/6 per day for each patient, or rather more than £13 for the full term of forty days.

Some of the items of expenditure were for the purchase of articles of furniture and appliances, which will not require to be replaced, and so will not again appear in the annual statement of cost.



The cost of food, divided amongst patients and staff was 6/- per week, or £15 12s. per head for the year.

The total cost of drugs, surgical dressings, &c., was £50 2s. od., the coal bill slightly exceeded £212, and the salaries and wages of the staff amounted to £435 for the year.

In an Isolation Hospital, where the number of admissions varies according to the amount of infectious disease present in the town, it is a difficult matter to graduate the staff in proportion to the patients.

Much again depends upon the severity of the cases under treatment, so that whilst at times the resources of the staff will be strained to the uttermost, at others it would seem as if the number of nurses and attendants was too great for the wants of the patients.

Still the work is always anxious and exacting, at times especially so, and a little relaxation and lighter occupation—which in an institution of this kind can always be found—only serves to maintain a proper balance. Again if the staff were reduced each time the patients fell below the average in number, a sudden influx of fresh cases would necessitate the employment of assistance which could only be obtained at a disadvantage and a materially increased cost.

The Hospital, both administrative block, and pavilions, has shown itself to be well adapted for the work for which it was intended and designed.

Both buildings and grounds are each year improving in appearance, and the latter afford the patients during the period of convalescence, an opportunity of obtaining the fresh air and moderate exercise which, in the majority of cases, would be impossible at their own homes. In conclusion I recognize, and would acknowledge, the efforts of matron, sisters, and nurses skilfully and patiently to carry out those duties, upon which the comfort and welfare of each patient so largely depends.

H. O. PILKINGTON,  
Medical Superintendent.

PORT SANITARY.

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In connection with the sanitation of the Port, and of the vessels entering the river or dock, there is not much to chronicle during the past year. There has been a slight increase in the number of steamers inspected, and a more than proportionate falling off in the number of sailing vessels. As regards the general condition of the whole of the shipping 1156 vessels are reported as being in a satisfactory condition, whilst, as regards 138, defects, of various degrees and nature, were found to be existing. These are set forth in Table No. 17, and were all remedied during the vessels' stay in Port, or were in process of being set right at the date of their departure.

The majority of the defects were the result of want of care and attention on the part of the crew, and so could at once be dealt with, but where slight structural alterations or repairs were necessary, Inspector Baron experienced little difficulty in getting his requirements carried out, and this upon verbal representation, and without the necessity for formal notice. Regulations have recently been issued by the Local Government Board relating to the inspection of Foreign meat of various classes which may be consigned to any Port, but these have little bearing here, since no meat of this description is brought into the town by water.

The presence of Cholera at Petersburg, and in some of the towns and ports situated on the Baltic and Black Sea littorals, rendered necessary the special examination of vessels coming from, or having had any connection with, these districts.

This was done before they entered the Dock, but in no instance was any case of the disease found on board, nor was the slightest evidence forthcoming that any suspicious case of illness had occurred during the voyage.

No other form of infectious disease was met with, such cases of illness as came under observation being not very severe in character, nor such as to require disinfection or other precautionary measures.

H. O. PILKINGTON,  
Medical Officer of Health,  
Port Sanitary Authority.



TABLE No. 1.

Number and Causes of Deaths at different Ages, for the 53 weeks ended  
January 2nd, 1909.

Cause of Death.	Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and over.	Total.	Corres- ponding year, 1907.	Corres- ponding year, 1906.	Corres- ponding year, 1905.	Average for the past six years.
Small Pox .....	..	..	..	..	..	..	..	..	..	1	1'66
Fever .....	..	1	7	6	11	..	25	17	21	17	23'33
Scarlatina .....	..	1	..	..	..	..	1	7	15	8	12'00
Measles .....	23	70	3	..	..	..	96	22	122	84	76'33
Diarrhœa .....	83	19	..	..	2	..	104	57	219	132	134'33
Whooping Cough .....	8	10	..	..	..	..	18	63	11	76	44'33
Diphtheria .....	..	8	3	..	..	..	11	14	16	17	18'00
Croup .....	..	5	2	..	..	..	7	6	9	12	11'00
Consumption .....	..	2	3	26	82	3	116	128	122	125	120'66
Bronchitis .....	69	40	2	1	67	61	240	291	236	230	252'33
Inflammation of Lungs....	12	30	6	6	29	13	96	163	104	105	122'00
Teething, Premature Births and Debility }	300	64	2	..	..	..	366	358	379	311	374'33
Old Age .....	..	..	..	..	8	112	120	111	86	88	103'50
Violence, &c. ....	10	4	2	5	37	16	74	65	61	75	62'83
Other Diseases .....	11	3	28	42	426	191	701	701	664	625	646'33
Total.....	516	257	58	86	662	396	1975	2003	2065	1906	2002'96

TABLE No. 2.

Number and Causes of Deaths in each Month of the Year ending 2nd January, 1909.

Cause of Death.	January.	February.	March.	April.	May.	June	July.	August.	September	October.	November.	December.	Total.
Small Pox.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever .....	3	3	1	2	...	3	3	2	1	2	1	4	25
Scarlatina.....	...	...	..	1	...	...	...	...	...	...	...	...	1
Measles .....	13	10	17	26	12	9	3	1	1	2	...	2	96
Diarrhœa .....	1	1	...	...	...	4	...	21	22	39	13	3	104
Whooping Cough .....	3	...	...	1	...	2	1	1	3	1	1	5	18
Diphtheria .....	1	1	...	...	1	1	2	...	...	2	1	2	11
Croup .....	2	...	1	...	...	...	...	1	2	1	...	...	7
Consumption .....	11	11	10	13	6	10	11	5	11	5	9	14	116
Bronchitis .....	47	25	20	25	13	10	8	5	14	17	32	24	240
Inflammation of Lungs ...	19	7	5	13	9	5	2	3	5	6	14	8	96
Teething, Convulsions, &c.	32	23	24	34	30	23	32	28	29	44	29	38	366
Old Age .....	19	8	5	17	9	6	9	9	9	7	7	15	120
Violence, &c. ....	11	5	7	3	7	5	7	8	6	2	4	9	74
Other Diseases .....	77	58	56	70	52	42	56	57	59	47	51	76	701
Total.....	239	152	146	205	139	120	134	141	162	175	162	200	1975



TABLE No. 3.

Number and Causes of Deaths in each Ward for the 53 weeks ended January 2nd, 1909.

Wards.	Small Pox.	Fever.	Scarlatina.	Measles.	Diarrhoea.	Whooping Cough.	Diphtheria.	Croup.	Consumption.	Bronchitis.	Inflammation of Lungs.	Teething, Pre-mature Births, & Debility	Old Age.	Violence, &c.	Other Diseases.	Total Deaths.	Rate per 1000 per annum.	Total Births.	Rate per 1000 per annum.	Population.
St. John's Ward ..	..	2	..	10	17	4	..	1	15	29	9	31	11	4	64	197	16·67	323	27·25	11855
Avenham Ward ..	..	1	..	6	3	..	..	..	4	10	6	8	8	5	47	98	12·93	161	21·24	7582
Christ Church Wd.	..	..	1	8	8	2	..	1	1	19	10	30	9	5	51	145	15·96	228	25·09	9087
Ashton Ward ..	..	3	..	3	1	..	..	..	8	20	9	24	11	5	47	131	16·37	208	25·99	8003
Maudland Ward ..	..	3	..	8	7	1	..	..	7	17	5	31	9	5	48	141	17·38	253	31·18	8113
St. Peter's Ward..	..	3	..	9	9	2	4	1	13	31	12	41	11	2	52	190	17·12	358	32·25	11100
Moor Brook Ward	..	3	..	3	5	..	..	..	12	12	4	28	8	4	44	123	13·07	242	25·72	9410
Park Ward ..	..	3	..	9	7	3	3	2	15	31	10	50	14	8	95	250	16·33	454	29·66	15304
Trinity Ward ..	..	2	..	19	23	1	2	1	12	36	14	29	13	4	53	209	18·05	290	25·04	11581
Deepdale Ward ..	..	5	..	8	10	1	..	..	10	15	11	39	10	3	50	162	17·31	318	33·97	9360
Ribbleton Ward ..	..	..	..	11	6	3	1	1	9	13	3	33	9	5	58	152	17·20	265	29·98	8838
Fishwick Ward ..	..	..	..	1	8	1	1	..	5	4	2	20	5	4	42	93	12·29	208	27·49	7566
Gaol, Infirmary, &c.	..	..	..	1	..	..	..	..	5	3	1	2	2	20	50	84		1		
Total.....	..	25	1	96	104	18	11	7	116	240	96	366	120	74	701	1975	16·45	3309	27·56	117799

Death Rate per annum, per 1,000 of the Population for the Year .....16·45

Do. Do. Do. Average for 10 years.....18·31

Infantile Mortality (Deaths under one year per 1,000 Births) for the year .....156·00

Do. Do. Do. Average for 10 years .....190·00

Per centage of Deaths under one year to total deaths for the year .....26·12

Do. Do. Do. Average for 10 years.....29·65

TABLE No. 4.

Number of Deaths in each Ward during each Month of 1908.

WARDS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
St. John's Ward .....	23	16	21	19	5	13	5	15	22	22	24	12	197
Avenham Ward .....	9	9	9	9	8	6	9	12	6	4	10	7	98
Christ Church Ward .....	14	11	8	15	12	9	6	16	10	9	14	21	145
Ashton Ward .....	20	12	9	11	10	9	8	10	10	6	9	17	131
Maudland Ward .....	19	7	8	10	13	14	8	8	13	12	15	14	141
St. Peter's Ward .....	19	21	13	18	11	16	12	9	14	20	15	22	190
Moor Brook Ward .....	15	14	14	12	10	5	12	8	6	9	10	8	123
Park Ward .....	34	10	19	21	20	14	15	17	17	28	19	36	250
Trinity Ward .....	29	15	13	28	11	11	17	16	22	21	11	15	209
Deepdale Ward .....	21	12	13	19	13	6	13	11	23	14	8	9	162
Ribbleton Ward .....	14	14	8	23	14	9	9	6	10	12	13	20	152
Fishwick Ward .....	12	6	4	12	5	4	14	5	3	9	10	9	93
Gaol, Infirmary, &c.....	10	5	7	8	7	4	6	8	6	9	4	10	84
Total.....	239	152	146	205	139	120	134	141	162	175	162	200	1975



TABLE 1A.

Vital Statistics of Whole District during 1908 and Previous Years.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year of Age.		At all Ages.						
		Number	Rate*	Number	Rate per 1,000 Births registered	Number	Rate*				Number	Rate*
I	2	3	4	5	6	7	8	9	10	11	12	13
1898	116,356	3559	30·58	812	221	2107	18·10	81	...	138	2245	19 29
1899	117,622	3492	29·68	889	255	2492	21·18	85	...	181	2673	22·72
1900	118,902	3410	28·67	814	236	2636	22·16	66	...	200	2836	23·85
1901	113,117	3418	30·21	737	218	2213	19·56	75	...	149	2362	20·88
1902	113,766	3278	28·81	618	188	1998	17·56	61	...	144	2142	18·82
1903	114,404	3453	30·18	541	156	1955	17·08	66	...	135	2090	18·26
1904	115,055	3314	28·26	609	183	2091	17·83	79	...	149	2240	19·10
1905	115,721	3259	28·16	490	150	1906	16 47	90	...	169	2075	17·93
1906	116,399	3317	28·49	665	200	2065	17·74	85	...	170	2235	19·20
1907	117,093	3124	26·68	495	158	2003	17·10	118	...	211	2214	18·90
Averages for years 1898-1907.	115,843	3362	28 97	667	196	2146	18·47	80	...	164	2311	19·89
1908	117,799	3309	27·56	516	156	1975	16·45	84	28	175	2122	17·67

\* Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) } 3,721.

Total population at all ages.....112,982  
Number of inhabited Houses ..... 24,194  
Average number of persons per house ...4·66

} At Census of 1901.

TABLE 1A.—Continued.

Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
1	2	3
Preston Royal Infirmary	Preston Union Workhouse	Borough Isolation Hospital
Nurses' Home, Garstang Road	Blackburn Workhouse	
St. Joseph's Hospital	Royal Southern Hospital, Liverpool	
	County Lunatic Asylum, Lancaster	
Is the Union Workhouse within the District? No.		



TABLE 2A.

Vital Statistics of separate Localities in 1908 and previous years.

Localities.	1901				1902				1903				1904				1905				1906				1907				1908			
	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.
St. John's Ward ...	11409	378	212	65	11495	354	217	71	11555	373	193	59	11630	346	232	64	11685	314	211	62	11745	325	219	73	11805	329	191	54	11855	323	197	60
Avenham Ward .....	7363	132	110	22	7394	101	82	13	7422	135	91	16	7462	141	116	14	7482	141	107	19	7502	146	105	44	7542	131	109	20	7582	161	98	13
Christ Church Ward	8753	254	159	48	8787	239	147	42	8837	269	137	48	8887	271	123	48	8972	242	137	35	8987	258	153	25	9037	238	140	37	9087	228	145	39
Ashton Ward .....	7688	210	98	33	7728	205	109	26	7758	231	110	32	7798	235	135	39	7838	220	108	21	7903	231	100	20	7953	197	106	21	8003	208	131	22
Maudland Ward .....	7783	213	130	50	7823	238	138	44	7873	227	125	38	7908	224	146	49	7948	231	123	39	7998	224	108	31	8058	200	124	32	8113	253	141	46
St. Peter's Ward ...	10597	352	213	67	10655	324	176	61	10735	383	201	63	10820	346	180	64	10900	372	192	65	10970	357	220	82	11040	373	209	63	11100	358	190	58
Moor Brook Ward...	9080	315	183	78	9119	264	138	47	9167	258	153	42	9201	239	156	44	9250	241	120	33	9300	257	147	46	9350	241	164	44	9410	242	123	38
Park Ward .....	14592	492	290	124	14701	482	265	91	14791	490	280	81	14880	447	271	80	15030	456	247	76	15125	466	267	104	15209	414	262	76	15304	454	250	62
Trinity Ward .....	11098	338	243	66	11185	319	249	83	11267	318	202	50	11330	323	218	71	11400	304	209	46	11435	298	239	97	11495	320	191	51	11581	290	209	62
Deepdale Ward .....	8986	272	156	62	9020	284	149	51	9060	281	129	30	9120	301	187	55	9170	280	151	39	9240	307	167	55	9310	262	144	36	9360	318	162	44
Ribbleton Ward .....	8506	266	201	68	8547	248	144	54	8597	275	159	56	8630	212	139	37	8670	247	111	27	8728	264	147	54	8778	250	137	42	8838	265	152	41
Fishwick Ward .....	7262	195	143	50	7302	196	123	35	7324	212	109	24	7380	227	109	39	7421	208	100	28	7466	182	108	33	7516	168	108	19	7566	208	93	28
Public Institutions...	...	1	75	5	...	5	61	4	...	1	66	2	...	2	79	5	...	3	90	...	...	2	85	...	...	1	118	...	...	1	84	3



TABLE 3A.

## Cases of Infectious Disease notified during the Year 1908.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.								TOTAL CASES NOTIFIED IN EACH LOCALITY.													
	At all ages	At Ages—Years.						St. John's Ward.	Avenham Ward	Christ Church Ward.	Ashton Ward.	Maudland Ward.	St. Peter's Ward	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward. (H.)	Ribbleton Ward	Fishwick Ward.	Gaol, Infirmary, &c.	Removed to Hospital.	
		Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and up-wards.															
Small Pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)... ..	64	1	27	27	3	6	...	6	2	6	1	6	6	5	9	8	7	3	5	...	18	
Erysipelas ... ..	56	1	2	3	8	35	7	3	2	6	3	2	6	6	7	7	4	5	4	1	...	
Scarlet Fever ... ..	115	3	31	73	6	2	...	7	17	9	5	17	12	6	17	3	8	8	2	4	53	
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Enteric Fever ... ..	139	...	12	50	29	48	...	19	8	2	10	13	17	8	21	12	13	6	7	3	82	
Relapsing Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Continued Fever ... ..	5	...	...	2	2	1	...	...	1	...	1	...	...	1	2	...	...	...	...	...	...	
Puerperal Fever ... ..	5	...	...	...	1	4	...	1	...	...	...	...	...	1	...	2	1	...	...	...	...	
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Totals ... ..	384	5	72	155	49	96	7	36	30	23	20	38	41	27	56	32	33	22	18	8	153	

Isolation Hospital.—Name and Situation } Preston Borough Isolation Hospital,  
Deepdale Road.

Total available beds—56.

Number of Diseases that can be concurrently treated } 3



TABLE 4A.

## Causes of, and Ages at, Death during the Year, 1908.

CAUSES OF DEATH.	Deaths at the subjoined ages, whether occurring in or beyond the District,							Deaths in Localities at all ages.											Deaths in Public Institutions.	Deaths in Workhouse.	
	All Ages,	Under 1 Year,	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65,	65 and upwards.	St. John's Ward.	Avenham Ward.	Christ Church Ward.	Ashton Ward.	Maudland Ward,	St. Peter's Ward.	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward.	Ribbleton Ward.			Fishwick Ward.
Small-pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...
Measles .....	96	23	70	3	...	...	...	10	6	8	3	8	9	3	9	19	8	11	1	1	...
Scarlet Fever .....	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough .....	18	8	10	...	...	...	...	4	...	2	...	1	2	...	3	1	1	3	1	...	...
Diphtheria and Membranous Croup...	11	...	8	3	...	...	...	...	...	...	...	...	4	...	3	2	...	1	1	...	...
Croup ...	7	...	5	2	...	...	...	1	...	1	...	...	1	...	2	1	...	1	...	...	...
Enteric Fever .....	25	..	1	7	6	11	...	2	1	...	3	3	3	3	3	2	5	...	...	...	...
Epidemic Influenza .....	40	3	...	1	2	24	10	5	5	2	3	2	1	...	6	2	1	6	...	1	6
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa ...	105	83	19	...	...	3	...	17	3	8	1	7	9	5	7	23	10	6	8	...	1
Enteritis .....	7	5	2	...	...	...	...	1	...	...	...	2	2	...	2	...	...	...	...	...	...
Puerperal Fever .....	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...
Erysipelas .....	3	1	...	...	2	...	...	...	..	...	...	1	...	1	...	1	...	...	...	...	...
Phthisis .....	130	...	2	3	26	95	4	15	4	1	7	7	14	12	15	12	10	9	5	5	14
Other Tuberculous Diseases .....	76	30	26	7	2	11	...	5	2	7	2	2	5	6	14	9	9	5	5	4	1
Cancer, Malignant Disease .....	104	...	...	...	...	67	37	5	11	10	1	5	6	4	13	8	8	6	9	6	12
Bronchitis .....	251	69	42	2	1	76	61	29	10	19	20	17	31	12	31	36	15	13	4	3	11
Pneumonia ...	103	14	31	6	6	33	13	9	6	10	9	5	12	4	10	14	11	3	2	1	7
Pleurisy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Other Diseases of Respiratory Organs	3	...	...	...	1	1	1	...	1	...	1	...	1	...	...	...	...	...	...	...	...
Alcoholism }	16	...	...	...	...	14	2	2	1	2	1	...	...	2	3	...	2	...	2	1	...
Cirrhosis of Liver }	6	3	1	...	...	2	...	...	...	...	...	...	2	...	...	...	...	2	...	...	2
Venereal Diseases .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Premature Birth .....	79	79	...	...	...	...	...	8	...	4	4	10	9	6	10	6	6	10	5	...	1
Diseases and Accidents of Parturition	11	...	...	...	1	10	...	1	...	1	1	1	1	2	2	...	1	...	...	1	...
Heart Disease.....	198	1	...	6	9	119	63	14	13	11	18	14	14	16	23	14	17	13	15	5	11
Accidents ...	68	10	4	3	5	31	15	3	4	5	3	5	2	4	6	4	2	4	3	20	3
Suicides .....	9	...	...	...	...	8	1	1	1	...	2	...	...	...	2	...	1	1	1	...	...
Old Age.....	156	...	...	...	...	7	149	11	8	9	11	9	11	8	14	13	10	9	5	2	36
All other causes .....	612	194	39	17	25	223	114	54	22	44	41	42	51	35	72	40	45	49	26	34	57
All causes... ..	2137	523	261	60	86	737	470	197	98	145	131	141	190	123	250	209	162	152	93	84	162



TABLE 5A.

Deaths from stated Causes in Weeks and Months under One Year of Age during the Year 1908.

Cause of Death.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes :—																	
Certified .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uncertified .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Common Infectious Diseases ;—																	
Small Pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken Pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .....	..	..	..	..	..	..	..	..	..	2	3	3	4	4	4	3	23
Scarlet Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria : Membranous Croup ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough ...	..	..	..	..	..	1	2	..	1	..	1	..	1	2	..	..	8
Diarrhoeal Diseases :—																	
Diarrhoea, all forms .....	..	..	2	1	3	7	13	23	9	3	2	9	4	4	2	4	83
Enteritis, Muco Enteritis, Gastro Enteritis .....	..	..	1	1	2	3	1	..	1	1	..	1	1	3	..	..	13
Gastritis, Gastro-intestinal Catarrh...	..	..	1	..	1	1	2	..	..	..	1	..	..	1	..	..	6
Wasting Diseases :—																	
Premature Birth .....	46	12	9	..	67	3	3	3	1	..	..	..	..	..	..	..	77
Congenital Defects .....	16	2	2	..	20	4	2	2	..	..	..	..	..	..	1	..	29
Injury at Birth .....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Want of Breast Milk .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus...	14	5	3	..	22	12	14	6	6	4	3	2	2	7	6	4	88
Tuberculous Diseases :—																	
Tuberculous Meningitis ...	1	..	..	..	1	..	..	..	..	..	1	..	1	..	..	2	8
Tuberculous Peritonitis : Tabes Mesenterica .....	..	..	..	..	..	..	1	2	1	1	1	1	..	2	..	2	11
Other Tuberculous Diseases ...	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	3
Erysipelas .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Syphilis .....	..	..	1	1	2	1	..	..	..	..	..	..	..	..	..	..	3
Rickets ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis ( <i>not Tuberculous</i> )...	1	..	..	..	1	..	1	1	1	..	..	..	1	..	2	..	7
Convulsions .....	7	1	1	1	10	5	2	1	4	2	1	2	4	..	3	1	35
Bronchitis.....	1	2	1	3	7	8	8	8	8	4	6	5	5	8	1	1	69
Laryngitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia ...	..	..	..	..	..	2	1	..	..	1	2	..	3	..	1	2	12
Suffocation, overlying .....	..	..	..	2	2	3	..	..	..	..	..	..	..	..	..	..	5
Other Causes .....	6	1	3	1	11	2	2	5	3	..	3	6	1	..	1	..	34
Total .....	93	23	24	10	150	52	52	52	36	18	25	32	27	32	21	19	516

Population, estimated to middle of 1908 ..... 117,799

Deaths from all Causes at all Ages ..... 1,975

Births in the Year, Legitimate ... 3,194

„ „ Illegitimate ..... 115





TABLE No. 5.

Birth Rate, Death Rate and Analysis of the Zymotic Death Rate, in 39 of the largest English Towns, for the 53 Weeks ending 2nd January, 1909.

Name of Town.	Estimated Population 1908.	Birth Rate.	Recorded Death Rate.	ZYMOTIC DEATH RATE.								Deaths under one Year to 1,000 Births.
				Small Pox.	Meas-les.	Scar-let Fever,	Diph-theria.	Who'p-ing Cough	Fever,	Diarr-hœa.	Total.	
London .....	4,795,757	25·4	13·6	—	0·31	0·11	0·15	0·20	0·04	0·53	1·36	113
Croydon .....	157,698	25·4	12·8	—	0·59	0·04	0·24	0·17	0·03	0·30	1·38	101
West Ham .....	315,000	28·9	13·8	—	0·70	0·15	0·17	0·26	0·09	1·00	2·38	129
Brighton .....	129,967	21·3	14·7	—	0·17	0·01	0·07	0·14	0·03	0·22	0·63	104
Portsmouth .....	211,493	28·4	13·7	—	0·06	0·04	0·23	0·26	0·12	0·26	0·96	98
Norwich .....	122,841	25·3	14·1	—	0·01	0·02	0·21	0·20	0·29	0·39	1·13	115
Plymouth .....	122,113	22·2	15·0	—	0·01	—	0·12	0·22	0·08	0·48	0·91	129
Bristol .....	372,785	23·1	13·5	—	0·26	0·02	0·16	0·34	0·02	0·34	1·15	126
Wolverhampton	103,318	25·8	14·3	—	0·06	0·09	0·31	0·22	0·10	0·43	1·21	132
Birmingham ...	558,357	28·4	15·9	—	0·10	0·13	0·18	0·55	0·10	0·80	1·86	145
Leicester .....	240,172	23·4	12·9	—	0·70	0·11	0·03	0·13	0·03	0·50	1·50	132
Nottingham .....	260,449	26·6	15·2	—	0·11	0·04	0·11	0·23	0·11	0·63	1·24	146
Derby .....	127,583	25·9	13·0	—	0·15	0·01	0·28	0·12	0·04	0·33	0·93	112
Birkenhead .....	119,830	31·5	15·8	0·01	0·36	0·06	0·10	0·51	0·09	0·77	1·90	136
Liverpool .....	753,203	31·8	19·2	—	0·34	0·28	0·17	0·46	0·10	0·84	2·20	142
Bolton .....	185,358	24·5	15·5	—	0·02	0·11	0·09	0·42	0·19	0·85	1·70	149
Manchester .....	649,251	29·2	18·2	—	0·55	0·14	0·18	0·33	0·11	0·93	2·26	151
Salford .....	239,294	29·6	17·8	—	0·69	0·27	0·50	0·43	0·16	0·98	3·04	153
Oldham .....	142,507	28·0	19·8	—	0·56	0·19	0·15	0·37	0·08	1·14	2·50	160
Burnley ... ..	105,100	28·2	17·9	—	0·48	0·12	0·12	0·39	0·11	1·60	2·83	201
Blackburn .....	135,961	25·1	15·6	—	0·12	0·17	0·09	0·21	0·11	0·83	1·54	150
<b>Preston .....</b>	<b>117,799</b>	<b>27·7</b>	<b>17·9</b>	—	<b>0·81</b>	<b>0·01</b>	<b>0·09</b>	<b>0·16</b>	<b>0·21</b>	<b>0·95</b>	<b>2·23</b>	<b>154</b>
Huddersfield ...	94,776	24·4	17·0	—	0·66	0·03	0·09	0·15	0·10	0·53	1·57	111
Halifax .....	111,018	19·0	14·1	—	0·33	0·02	0·11	0·28	0·10	0·16	1·01	101
Bradford .....	292,136	20·2	15·5	—	0·24	0·04	0·14	0·19	0·10	0·65	1·37	143
Leeds .....	477,107	24·8	15·3	—	0·37	0·03	0·09	0·28	0·05	0·68	1·51	138
Sheffield .....	463,222	30·7	15·8	—	0·22	0·08	0·08	0·53	0·05	0·86	1·83	140
Hull .....	271,137	30·3	16·1	—	0·34	0·01	0·18	0·21	0·08	1·37	2·19	145
Sunderland .....	157,693	33·0	17·7	—	0·15	0·04	0·17	0·75	0·09	0·65	1·85	147
Gateshead .....	128,393	30·9	14·9	—	0·13	0·04	0·20	0·53	0·03	0·98	1·90	149
Newcastle .....	277,257	29·8	15·9	—	0·10	0·03	0·12	0·48	0·05	0·46	1·26	137
Cardiff .....	191,446	26·6	12·9	—	0·02	0·05	0·11	0·24	0·03	0·64	1·10	126
Swansea ... ..	97,810	33·1	18·6	—	0·45	0·07	0·04	0·24	0·01	0·79	1·60	152
Warrington .....	71,268	32·7	17·0	—	0·36	0·21	0·21	0·86	0·15	0·61	2·41	134
St. Helens .....	93,812	34·8	15·7	—	—	0·31	0·18	0·07	0·13	0·83	1·53	123
Stockport .....	102,339	27·8	18·2	—	0·60	0·10	0·13	0·31	0·06	1·24	2·44	168
Middlesborough	103,511	35·9	19·7	—	0·93	0·05	0·31	0·08	0·16	1·88	3·42	159
South Shields ...	115,535	30·1	15·4	—	0·28	0·07	0·19	0·43	0·05	0·64	1·67	134
Northampton ...	96,405	20·9	11·5	—	0·03	0·05	0·04	0·30	0·05	0·25	0·72	97





TABLE No. 6.

The estimated Population, Number of Births and Deaths, Rates per thousand, and natural increase in the Borough, for each year since 1841.

Years.	Estimated Population.	No. of Deaths.	Death Rate per 1000.	No. of Births.	Birth Rate per 1000.	Natural Increase.
1841	51,000	1508	29.57	1974	38.70	466
1842	52,840	1550	29.33	1944	36.79	394
1843	54,680	1459	26.38	1975	36.12	516
1844	56,520	1380	24.42	2200	38.92	820
1845	58,360	1635	28.01	2293	39.29	558
1846	60,200	2189	36.36	2475	41.09	286
1847	62,050	2059	33.18	2268	36.59	209
1848	63,900	1550	24.26	2223	34.79	673
1849	65,750	1751	26.63	2403	36.55	652
1850	67,000	1745	25.81	2649	39.19	904
1851	69,450	2241	32.26	2803	40.36	562
1852	70,850	2284	32.23	2998	42.31	714
1853	72,250	2346	32.47	3072	42.51	726
1854	73,600	2013	27.35	3037	41.26	1024
1855	75,000	2557	34.10	3071	40.95	514
1856	76,400	2251	29.46	3151	41.24	900
1857	77,800	2131	27.39	3286	42.24	1155
1858	79,200	2545	32.13	3082	38.91	537
1859	80,600	2111	26.19	3399	42.17	1288
1860	82,000	2236	27.27	3381	41.23	1145
1861	82,985	2585	31.15	3626	43.69	1041
1862	83,231	2411	28.97	3522	42.32	1111
1863	83,477	2142	25.66	3388	40.57	1246
1864	83,686	2432	29.06	3422	40.89	990
1865	83,932	2708	32.26	3338	39.77	630
1866	84,178	2854	33.90	3535	41.99	681
1867	84,424	2608	30.89	3732	44.20	1124
1868	84,670	2798	33.04	3710	43.82	912
1869	84,916	2248	26.47	3434	40.44	1186
1870	85,162	2406	28.25	3486	40.93	1080
1871	85,427	2541	29.75	3438	40.24	897
1872	85,654	2294	26.78	3704	43.24	1410
1873	86,000	2899	33.71	3558	41.37	659
1874	86,000	2962	34.44	3582	41.65	620
1875	86,000	2581	30.01	3499	40.68	918
1876	86,600	2331	26.92	3623	41.84	1292
1877	87,000	2336	26.85	3601	41.39	1265
1878	87,300	2502	28.66	3697	42.35	1195
1879	87,600	2395	27.34	3403	38.83	1068
1880	88,000	2425	27.35	3475	39.49	1050
1881	96,524	2044	21.17	3489	36.14	1445
1882	97,656	2511	25.71	3785	38.76	1214
1883	98,564	2345	23.79	3576	36.28	1231
1884	99,481	2540	25.53	3745	37.64	1205
1885	100,406	2563	25.52	3868	38.52	1305
1886	101,340	2769	27.32	3961	39.08	1192
1887	102,283	2703	26.42	3870	37.83	1167
1888	103,234	2326	22.53	3823	37.03	1497
1889	104,194	2019	28.97	3912	37.63	902
1890	105,163	2726	25.92	3718	35.35	992
1891	107,864	2807	26.02	3830	35.50	1023
1892	109,038	2481	22.75	3686	33.80	1205
1893	110,225	2753	24.97	3809	34.55	1056
1894	111,425	2186	19.61	3545	31.81	1359
1895	112,638	2528	22.44	3702	32.95	1174
1896	113,864	2191	19.24	3673	32.25	1482
1897	115,103	2687	23.34	3687	32.03	100
1898	116,356	2107	18.10	3559	30.58	14
1899	117,622	2492	21.18	3492	29.68	10
1900	118,902	2636	22.16	3410	28.67	77
1901	113,117	2213	19.56	3418	30.21	120
1902	113,766	1998	17.56	3278	28.81	1280
1903	114,404	1955	17.08	3453	30.18	149
1904	115,055	2091	17.83	3314	28.26	1
1905	115,721	1906	16.47	3259	28.16	1353
1906	116,399	2065	17.74	3317	28.49	1252
1907	117,093	2003	17.10	3124	26.68	1121
1908	117,799	1975	16.45	3309	27.56	1334

TABLE No. 7.

Per Centage of Deaths from Zymotic Diseases to Sickness reported during the  
Year ending 31st December, 1908.

Disease.	No. of Cases Reported.	No. of Deaths.	Per centage.
Small Pox .....	...	...	...
Typhoid Fever .....	139	25	18·00
Scarlet Fever .....	115	1	0·87
Diphtheria .....	60	11	18·33
Puerperal Fever.....	5	2	40·00
Erysipelas .....	56	3	5·36

TABLE No. 8.

Meteorological Observations for the Year 1908.

Month.	Attached Thermometer.	Barometer.	Barometer corrected to 32 deg. Fahr.	Hygrometer		Temperature in Shade.		Earth Thermometer		Mean Daily Temperature.	Humidity Saturation=100	Rainfall in inches.	Number of Deaths from	
				Dry Bulb.	Wet Bulb.	Maxi- mum	Mini- mum.	One Foot.	Four Feet.				Bronchitis.	Diarrhoea.
January ....	36·3	29·959	30·073	40·2	39·4	40·9	32·9	37·5	41·8	36·9	93	2·71	47	1
February ..	41·9	29·922	30·029	42·6	41·8	45·8	38·5	40·4	42·2	42·2	94	2·42	25	1
March.....	39·3	29·714	29·825	40·9	38·9	44·0	35·4	37·8	41·3	39·7	82	2·05	20	..
April .....	44·1	29·879	29·977	45·7	42·4	50·1	38·4	41·4	42·8	44·2	75	3·00	25	..
May.....	54·9	29·880	29·950	55·5	51·6	60·4	48·5	49·2	46·9	54·4	77	2·04	13	..
June .....	59·1	29·968	30·027	59·1	54·7	64·0	51·1	53·3	51·1	57·5	73	1·86	10	4
July .....	62·0	29·983	30·033	62·7	57·8	67·6	54·5	56·8	54·6	61·0	72	4·54	8	..
August ....	59·5	29·928	29·985	59·9	55·6	64·3	53·4	55·9	55·5	58·5	76	3·91	5	21
September ..	56·0	29·852	29·928	57·4	55·1	62·2	51·2	53·9	53·8	56·7	83	5·15	14	22
October ....	53·1	30·041	30·114	54·0	52·1	58·3	49·4	52·4	54·2	53·8	87	2·31	17	39
November ..	45·3	29·895	29·993	46·3	44·8	50·1	42·1	46·0	49·7	46·1	91	3·58	32	13
December ..	40·0	29·879	29·917	40·7	41·5 4 weeks	43·6	36·5	42·8 2 weeks	45·2	40·0	92 4 weeks	2·76	24	3



TABLE No. 9.

## Summary of Work done during the Year 1908.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Number of Complaints received .....	168	694	304	433	1,599
Inspections of Dwelling Houses .....	3763	2282	2987	3951	12,983
„ Infected Houses .....	108	306	175	108	697
„ Lodging Houses.....	100	1693	114	2737	4,544
„ Cellar Dwellings .....	...	2	82	...	84
„ Canal Boats .....	...	...	...	129	129
„ Vans and Tents .....	20	72	36	75	203
„ Schools.....	..	2	21	4	27
„ Cowsheds, Dairies and Milkshops ...	94	4	149	226	473
„ Slaughter Houses.....	29	21	85	67	202
„ Markets .....	20	146	30	830	1,026
„ Drains and Yards ...	4154	2720	3012	4219	14,105
Re-Inspections .....	3650	1818	1896	3645	11,009
Smoke Observations .....	168	127	118	160	573
Circular Letters sent .....	247	467	139	193	1,046
Notices served for Defective Slopstone Pipes	99	25	79	53	256
„ „ Drains .....	97	196	205	254	752
„ „ Spouts .....	38	47	81	26	192
„ „ Water Closets .....	67	73	157	195	492
„ „ Privies and Ashpits	...	...	...	2	2
„ „ Yard Pavement .....	35	42	...	35	112
„ Overcrowding ...	2	1	1	2	6
„ Limewashing .....	130	96	94	53	373
„ Manure Accumulations.....	4	15	16	19	54
„ General Nuisances.....	82	84	75	60	301
Notices served to Flag Yards .....	396	304	280	392	1,372
„ Flag Lobby .....	25	50	...	208	283
„ Convert Privies into W.C's.	46	19	62	6	133
„ Abolish Ashpits .....	...	14	8	6	28
„ Supply Ashpails .....	46	54	13	86	199
House Drains Tested .....	119	113	15	135	382
Number of Houses Disinfected .....	114	182	142	130	568
Number of Schools „ .....	1	9	4	3	17
Parcels of Bedding „ .....	25	30	50	57	162
Number of Animals removed .....	82	140	52	99	373
„ Ashpails cleansed .....	...	...	...	...	1,154,593
„ Ashpits cleansed .....	...	...	...	...	1,716
Fish Condemned and Destroyed .....	...	...	{ Shell Wet Dry	1724 lbs. 33841 „ 732 „	{ 36,297
Butcher's Offal Condemned and Destroyed.....	...	...	...	...	1,586
Fruit Condemned and Destroyed .....	...	...	...	...	4,480

TABLE No. 6A.

**Factories, Workshops, Laundries, Workplaces and Home-Work.**

## 1.—INSPECTION.

Premises.	Number of		
	Inspections	Written Notices.	Prosecutions.
Factories (including Factory Laundries) .. ...	116	...	...
Workshops (including Workshop Laundries) ... ..	1750	...	...
Workplaces (other than Outworkers' premises included in Part 3 of this Report) ... ..	100	...	...
Total ... ..	1966	...	...

## 2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ... ..	52	52		
Want of Ventilation ... ..	29	28		
Overcrowding ... ..	...	...		
Want of drainage of floors ... ..	...	...		
Other Nuisances ... ..	55	55		
Sanitary accommodation {	insufficient ... ..	17	17	
	unsuitable or defective ... ..	50	49	
	not separate for sexes ... ..	...	...	
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) ... ..	...	...		
Breach of special Sanitary requirements for bakehouses (ss. 97 to 100) ... ..	...	...		
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report) ... ..	...	...		
Total ... ..	203	201	...	...



### 3.—HOMEWORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.								Number of Inspections of Outworkers premises.	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.				Number of Addresses of Outworkers received from other Councils.	Number of Addresses of Outworkers forwarded to other Councils.	Prosecutions.			Instances.	Notices served.	Prosecu- tions.	Instances.	Orders made (sec. 110).	Prosecu- tions (Sections 109, 110).
	Twice in the Year.		Once in the Year.				Failing to keep or permit inspection of lists.	Failing to send lists.							
	Lists.	Outworkers.	Lists.	Outworkers.											
Wearing Apparel :—															
(1) making, &c. ...	24	50	10	14	1	1	...	...	123	...	...	..	...	..	...
(2) cleaning and washing ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
TOTAL ...	48	100	10	14	1	1	...	...	123	...	...	...	...	...	...

### 4.—REGISTERED WORKSHOPS.

### 5.—OTHER MATTERS.

Workshops on the Register (s. 131) at the end of the year.							Number.	Class.	Number.
Factories ...	...	...	...	...	...	...	116	Matters notified to H.M. Inspector of Factories:—	
Workshops ...	...	...	...	...	...	...	744	Failure to affix Abstract of the Factory and Workshop Act (s 133) ...	...
Retail Bakehouses...	..	...	...	...	...	...	111	Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act, (s. 5.)	2
Public do. ...	...	...	...	...	...	...	19	Other ...	133
Workplaces ...	...	...	...	...	...	...	84	Underground Bakehouses (s. 101):—	
								Certificates granted during the year	...
Total number of workshops on Register ...							1074	In use at the end of the year	5





TABLE No. 10.

## Summary of Work done under the Factory and Workshops Act during the Year 1908.

	No. 1 District	No. 2 District	No. 3 District	No. 4 District	Total
Number of Factories and Workshops on Register	182	367	147	378	1074
„ Circular Letters sent re Out-workers ...	...	61	...	53	114
„ Out-workers reported .....	...	70	...	44	114
Visits to Factories and Workshops ..	378	572	308	708	1966
„ Retail Bakehouses .....	90	296	70	275	731
„ Public Bakehouses .....	50	25	48	113	236
„ Home-workers premises .....	12	30	33	48	123
Drains tested .....	...	1	...	5	6
<i>Defects found and remedied :—</i>					
Defective Urinals .....	...	...	...	...	...
„ Drains .....	4	3	2	8	17
„ Spouts and Roofs .....	...	...	1	2	3
„ Water Closets ... ..	6	3	10	17	36
Privies converted into W.C.'s .....	...	1	12	1	14
Limewashing required.....	14	9	11	18	52
General Nuisances .....	2	5	3	19	29
Insufficient Ventilation ... ..	6	11	...	12	29
„ W.C. accommodation for Females .....	...	2	3	2	7
„ „ Males .....	...	7	3	...	10
No receptacle for Refuse .....	1	...	4	...	5
Manure Accumulations ... ..	...	1	...	...	1

TABLE No. 11.

## List of Factories and Workshops on Register during the Year 1908.

	No. 1 District	No. 2 District	No. 3 District	No. 4 District	Total
Bakers and Confectioners (Retail) .....	24	36	18	33	111
Bakers (Public) .....	5	5	4	5	19
Basket Makers .....	1	2	2	1	6
Beer Bottlers ... ..	4	2	1	6	13
Biscuit Makers .....	...	4	1	...	5
Boot, Shoe, and Clog Makers, Leather Curriers	21	50	22	30	123
Brass founders .....	1	2	2	2	7
Breweries .....	...	4	...	3	7
Brush Makers .....	1	1	...	2	4
Cabinet Makers, Wood Carvers, Upholsterers	4	11	3	16	34
Coach Builders .....	1	5	...	4	10
Cotton Waste Cleaners and Dealers .....	...	1	...	2	3
Cotton Manufacturers .....	23	14	20	8	65
Coopers .....	1	3	1	1	6
Cycle Makers and Enamellers .....	3	11	3	7	24
Engravers .....	...	...	...	6	6
French Polishers .....	1	2	...	3	6
Ironfounders.....	4	5	5	3	17
Joiners, Builders, Wheelwrights, Wood Turners ...	12	17	5	13	47
Laundries .....	2	...	3	1	6
Marine Store Dealers .....	...	4	...	3	7
Milliners, Dressmakers, Underclothing Manufacturers	24	74	20	60	178
Picture Framers, Mount Cutters, Gilders .....	1	4	2	6	13
Photographers .....	4	3	1	3	11
Plumbers, Painters .....	10	13	4	18	45
Printers, Bookbinders .....	...	1	1	18	20
Restaurant Keepers .....	4	3	3	4	14
Rope and Twine Makers .....	2	...	2	...	4
Saddlers .....	...	6	1	4	11
Smiths, Black and White and Tinplate ... ..	5	9	5	25	44
Stone and Marble Masons .....	4	4	2	3	13
Sugar Boilers .....	3	1	1	...	5
Tailors .....	8	33	8	49	98
Watch Makers and Jewellers ... ..	3	12	3	10	28
Wire Workers... ..	...	1	...	1	2
Offensive Trades {	Fell Mongers .....	...	...	1	1
	Soap Boilers .....	...	1	3	4
	Fat and Tallow Melters .....	...	...	3	7
	Tripe Boilers.....	1	2	1	4
	Knacker Yards .....	1	...	...	1
	Gut Scrapers.....	...	4	...	4
Various ... ..	2	14	3	20	39



TABLE No. 12.

## HEALTH VISITORS.

Summary of Work done during the Year ending December 31st 1908.

					District A.	District B.	District C.	District D.	Total.
Visits, Births.	Number of Houses visited .....				1241	1133	559	447	3410
	{	„	„	Found Clean .....	1092	1100	554	387	3133
		„	„	Found Dirty .....	149	33	5	90	277
		Children.	{	Breast Fed .....	1084	945	526	395	2950
			{	Partially Breast Fed ...	43	62	4	17	126
			{	Artificially Fed .....	114	121	29	65	329
	Occupation of Mother.	{	Home Permanently .....	655	593	474	382	2104	
		{	Home Temporarily .....	563	492	85	84	1224	
		{	Home and Work .....	23	24	...	11	58	
		{	At Work when visited...	19	19	...	...	38	
Visits, House to House.	{	Number of Houses visited .....		165	11	995	...	1171	
		„	„	Found Clean .....	131	3	908	...	1042
		„	„	Found Dirty .....	34	8	87	...	129
Visits, Measles and Whooping Cough Deaths.	Visits—Minor Infectious Diseases amongst School Children.....				1432	1554	684	834	4504
	{	Number of Houses visited .....		29	53	7	9	98	
		„	„	Found Clean .....	21	47	7	6	81
		„	„	Found Dirty .....	8	6	...	3	17
	{	Number of Houses visited .....		9	22	27	18	76	
		„	„	Found Clean .....	8	21	26	13	68
		„	„	Found Dirty .....	1	1	1	5	8
Children.		{	Breast Fed .....	...	...	4	3	7	
	{	Partially Breast Fed ...	...	1	...	5	6		
	{	Artificially Fed .....	9	21	23	10	63		
Visits, Diarrhoea Deaths.	Number of Re-visits .....				1548	810	832	531	3721
	„	Tube Bottles in use .....		38	53	11	48	150	
	„	Cards distributed .....		1241	1130	556	477	3404	

TABLE No. 13.

Return of Work done by Inspector of Food and Drugs, &amp;c., during the year 1908.

Food and Drugs, Samples purchased	.....	.....	282
Cow-sheds and Dairies visited	.....	.....	147
Slaughter-houses visited	.....	.....	4338
Meat Condemned and Destroyed	.....	.....	111,258 lbs

TABLE No. 14.

Contagious Diseases (Animals) Act, 1878.

Name of Disease.	Situation of Premises.	Date of Outbreak.	Number of Diseased Animals.	Number of Healthy Animals.	Slaughtered by Owner.	Slaughtered by Order of Board of Agriculture.	Number of Visits.
Parasitic Mange ...	Old Militia Barracks	July 27th	2	2	...	...	15
Do. ...	Yard off Lennox St	Aug. 10th	1	...	...	...	10
Do. ...	No. 1 Craggs Row ...	Dec. 19th	6	...	...	...	12



TABLE No. 15.

Substances submitted for Analysis during the Year 1908.

Name of Article.	No. of Samples.	Result.
Beer .....	3	Genuine
Bread .....	5	Do.
Butter .....	54	Do.
Cheese .....	4	Do.
Coffee .....	21	Do.
C'mpound Liquorice Powder .....	2	Do.
Compound Tincture Rhubarb .....	3	Do.
Flour.....	2	Do.
Ginger (Ground) ...	1	Do.
Glycerine .....	1	Do.
Ice Cream .....	2	Do.
Lard .....	7	Do.
Milk .....	49	Do.
Pepper (White) ...	4	Do.
„ (Cayenne) ...	2	Do.
Sweets (Mixed).....	13	Do.
Vinegar (Malt).....	5	Do.
Wine (Port) .....	2	Do.
Whiskey .....	17	Do.
	197	Genuine
	22	Adulterated
	219	Total
Butter .....	1	Contained 85 per cent. of fat other than butter, and 8 per cent. water. Summoned and fined £1 and costs.
Coffee .....	1	Labelled Coffee and Chicory.
Cheese .....	1	Passable.
„ .....	1	Do.
Pepper (White).....	1	Contained 1 per cent. of rice flour.
Sugar (Demerara)...	1	Refined sugar coloured with syrup. Vendor cautioned.

TABLE No. 15.—Continued.

Name of Article.	No. of Samples.	Result.
Whiskey .....	1	34 degrees under proof, which is 9 degrees below the statutory limit ; Vendor summoned and ordered to pay costs.
„ .....	1	25·7 degrees under proof, which is 0·7 degrees below the statutory limit ; Vendor cautioned.
„ .....	1	27·5 degrees under proof, which is 2·5 degrees below the statutory limit ; Vendor cautioned.
„ .....	1	Do. do. do. do.
„ .....	1	28 degrees under proof, which is 3 degrees below the statutory limit ; Vendor cautioned.
„ .....	1	28·5 degrees under proof, which is 3·5 degrees below the statutory limit ; Vendor cautioned.
Milk .. ..	1	Contained 2·58 per cent. fat, 8·37 per cent. other solids,=10·95 per cent. total solids ; Vendor cautioned.
„ .....	1	Contained 2·63 per cent. fat, 7·82 per cent. other solids,=10·45 total solids, added water 8 per cent. Vendor summoned and fined 20/- and costs.
„ .....	1	Contained 2·71 per cent. fat, 8·69 per cent. other solids,=11·40 per cent. total solids ; Vendor cautioned.
„ .....	1	Contained 2·72 per cent fat, 9·35 per cent. other solids,=12·07 total solids ; Vendor cautioned.
„ .....	1	Contained 2·73 per cent. fat, 7·96 per cent. other solids,=10·69 total solids, added water 6 per cent. Vendor cautioned.
„ .....	1	Contained 2·78 per cent fat, 18·19 per cent. other solids=10·97 total solids, slight amount of added water ; Vendor cautioned.
„ .....	1	Contained 2·80 per cent. fat, 9·32 per cent. other solids,=12·12 per cent. total solids ; Vendor cautioned.
„ .....	1	Slightly deficient in cream (fat 2·9 per cent.) Vendor cautioned.
„ .....	1	Slightly watered (Non fatty solids, 8·30 per cent.)Do.
„ .....	1	Contained 3·14 per cent. fat, 6·75 per cent. other solids,=9·89 per cent. total solids, added water 20 per cent. ; Vendor summoned and fined 40/- and costs.



TABLE No. 16.

Substances informally purchased and submitted for Analysis during the Year 1908.

Name of Article	No. of Samples.	Result.
Beer .....	1	Genuine
Butter .....	20	Do.
Cascara Sagrada ...	1	Do.
Coffee .....	9	Do.
Glycerine .....	2	Do.
Lard .....	1	Do.
Liquorice Powder...	1	Do.
Milk .....	13	Do.
Milk (Condensed)...	1	Do.
Pepper (White).....	3	Do.
Pepper (Cayenne) ...	1	Do.
Plasmon.....	1	Do.
Tincture of Rhubarb	1	Do.
	55	Genuine
	8	Adulterated
	63	Total.
Chocolate Liqueur...	1	Contained a minute trace of alcohol.
do. ...	1	Do. Do. (0.32 per cent. absolute alcohol).
do. ...	1	Contained 2.79 per cent. absolute alcohol.
Coffee .....	1	40 per cent. chicory.
Cream .....	1	Genuine as labelled.
Milk .....	1	Contained 2.78 per cent., 8.85 per cent. other solids,=11.72 per cent. total solids.
Do. ....	1	Contained 2.95 per cent. fat, 7.84 per cent. other solids,=10.79 per cent. total solids ; 8 per cent. added water.
Do. ....	1	Contained 3.57 per cent. fat, 7.09 per cent. other solids,=10.66 per cent. total solids ; 16 per cent. added water.

TABLE No. 17.

**Return of Port Sanitary Work for the Year ending December 31st, 1908.**

Steamships Inspected	.....	.....	.....	.....	1220
Sailing Vessels Inspected	.....	.....	.....	.....	74
Re-Inspections .....	.....	.....	.....	.....	116
Condition of Vessels Inspected	{	Good	.....	.....	1156
		Defective ...	.....	.....	138
<i>Defects Remedied.</i>					
Forecastle Dirty ...	.....	.....	.....	.....	49
Do. Required painting	.....	.....	.....	.....	16
Do. Deck Leaking	.....	.....	.....	.....	4
Do. Ventilation and Light Defective	.....	.....	.....	.....	17
Foul and Defective Water Closets	.....	.....	.....	.....	37
Foul Water Casks and Tanks	.....	.....	.....	.....	9
Dirty Provision Lockers	.....	.....	.....	.....	65
Do. Bilges	.....	.....	.....	.....	6
Do. Chain Lockers under Forecastle	.....	.....	.....	.....	1



INFANTILE DIARRHOEA, 1908.

The Red Spots • indicate deaths from Diarrhoea under the age of one year.

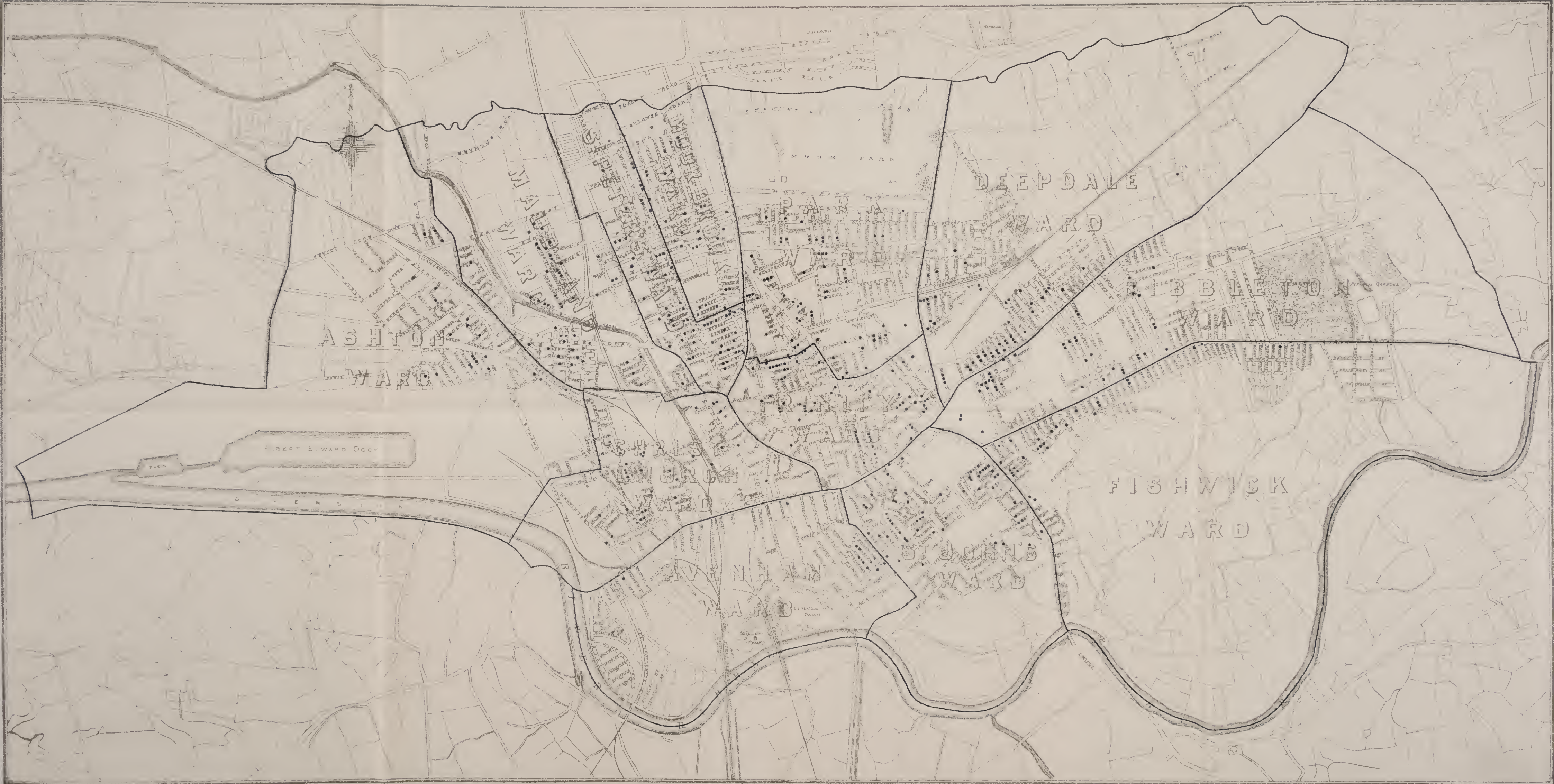








INFANTILE MORTALITY, 1908.









# ZYMOTIC DISEASES, 1908.

The Red Spots    •    indicate deaths from Scarlet Fever  
The Blue Spots    •    "    "    Typhoid Fever.  
The Yellow Spots    •    "    "    Diphtheria.









Those in lighter shade indicate Blocks dealt with during the previous twenty-four years.









